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STATISTICS OF HAWAIIAN AGRICULTURE
1986

Prepared by
HAWAII AGRICULTURAL STATISTICS SERVICE
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A Cooperative Function of

Hawaii
Department of Agriculture
Marketing Division

United States
Department of Agriculture
National Agricultural Statistics Service

EXECUTIVE CHAMBERS

HONOLULU

JOHN WAIHEE
GOVERNOR

MESSAGE FROM GOVERNOR JOHN WAIHEE

Coming from the Big Island and being raised around ranches much of my life, I know first-hand the functions, needs and contributions of agriculture to Hawaii's economy. I am pleased that Statistics of Hawaiian Agriculture 1986 tells the story of Hawaii's acreage, production, value and inventory at the farm level.

However, there is even more of a story. For what is not detailed in our agricultural data series is the value that is added to the basic agricultural product before it is consumed. For instance, after macadamia nuts are hulled and shelled, they may be roasted, covered with chocolate, made into baked goods, or undergo other processing steps. With regard to macadamia nuts, the statistics in this book reflect only the farm value of in-shell nuts.

As we move forward in our analysis of the economic contribution of agriculture to Hawaii, we need to look at the multiplier effect. For only when we consider the contribution and value of processing, packaging and servicing at the wholesale level and beyond, will we know the complete story of what agriculture means to our State.

Agriculture remains an industry which serves us well and an industry with potential yet to be fulfilled.

JOHN WAIHEE

JOHN WAIHEE
GOVERNOR

SUZANNE D. PETERSON
CHAIRPERSON, BOARD OF AGRICULTURE

TADASHI TOJO
DEPUTY TO THE CHAIRPERSON

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 So. King Street
Honolulu, Hawaii 96814-2512

Mailing Address:
P. O. Box 22159
Honolulu, Hawaii 96822-0159

Diversified agriculture continued its climb, as a fourth consecutive record high value of $231 million was established in 1986. Leading this charge was the floriculture industry with over $49 million and the largest segment of diversified agriculture for the past 6 years. Macadamia nuts, with a 15 percent increase from last year jumped to $35 million and milk reappeared in the top three with a 1986 value of almost $31 million.

Self-sufficiency to the extent practical remains as a priority for this administration. This is happening in the banana industry where producers have improved their marketing position by increasing production and placing a high quality product on the shelf. The banana industry is featured in this issue of "Statistics of Hawaiian Agriculture".

This annual summary published by the Hawaii Agricultural Statistics Service is one of over 180 statistical reports issued by this office each year. This unique program is a joint effort of the Hawaii Department of Agriculture and the National Agricultural Statistics Service, U. S. Department of Agriculture. This cooperative effort allows for better utilization of available resources without duplicating programs and respondent burden.

Suzanne D. Peterson
Chairperson, State Board of Agriculture

Hawaii
Department of Agriculture
Marketing Division

United States
Department of Agriculture
National Agricultural Statistics Service

HAWAII
AGRICULTURAL STATISTICS SERVICE
P. O. Box 22159
Honolulu, Hawaii 96822-0159

The heart of this estimating program lies in the voluntary reporting by farmers, ranchers, agribusinesses, and grower organizations who faithfully supported the data collection activities that served as the basis for the agricultural statistics that are included in this publication. Additionally, there were other State and Federal agencies that participated in the development of this information. We are very grateful for the cooperation, assistance, understanding and patience from all who contributed to this effort.

The entire branch of the Hawaii Agricultural Statistics Service prepared these estimates as part of their day-to-day responsibilities during the past year. Particular recognition for the composition of this publication is extended to Joyce Jay, editor; Sandy Fukunaga and Karen Ashitomi, typists and Ronald Nakamura, who prepared the feature article on bananas. It remains a sincere pleasure to have the opportunity to work with the following group of dedicated State and Federal employees:

Deputy State Agricultural Statistician
Donald A. Martin

Research Statisticians
Nils Morita - Livestock, Labor and Prices
Ronald Nakamura - Fruits, Vegetables and Field Crops
Arthur Osaki - Floriculture, Papaya and Special Projects
James Yamaki - Hawaii
Llewellyn Suzuki - Hawaii
Renan Mahikoa - Maui, Molokai
June Okamura - Kauai, Oahu
Wendell Au - Oahu

Computer Programmer
Jan Yokogawa

Support Staff
Joan Nakamatsu - Supervisor
Carol Igawa - Administrative Technician, Secretary
Joyce Jay - Statistical Assistant
Sandy Fukunaga - Statistical Clerk-Typist
Karen Ashitomi - Statistical Clerk-Data Transcriber
Verma Peterson - Clerk-Typist II
Shirley Fuke - Research Aid, Hawaii

Rowena Tanaka - Hawaii Department of Agriculture Printing Office

Additionally, we have a seasoned corps of State and NASDA enumerators that contact producers across the State to collect survey data. They are a major factor in our ability to obtain large amounts of data in short time frames and generate timely, accurate estimates for use in market analysis, financial planning and evaluation of production schedules.

Reports published by this office are free to Hawaii's agricultural producers and other contributors. A nominal fee is charged others for printing and mailing costs. Please see page 99 for a list of reports, the frequency of publication and our office street and mailing address.

Sincerely,

Aubrey R. Davis

Aubrey R. Davis
State Agricultural Statistician

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HAWAII AGRICULTURE 1986

Improved returns from sugar and pineapple combined with another year of record receipts from diversified agriculture to boost the 1986 farm value of agricultural production to $564.7 million, 7 percent above the previous year. The contribution of Hawaii's agriculture to the State's economy including the processed values of sugar and pineapple was $837.8 million, 7 percent above 1985. Value added figures for the total contribution of agriculture to Hawaii's economy are not available.

Higher yields and improved prices were responsible for the 6 percent increase in sugar returns and a larger crop in 1986 triggered the 9 percent rise in pineapple value. Pineapple acreage reversed its downward slide, increasing 4 percent in 1986.

Riding on the strength of record farm values for macadamia nuts, floriculture, fruits other than pineapple, coffee, milk, hogs and honey, the diversified sector of agriculture posted a 7 percent gain in cash receipts over 1985, the previous high year. With total returns of $231.2 million, 1986 was the fourth consecutive year of increased value for diversified agriculture. Over a span of the last 21 years, only one year, 1982, failed to post a year-to-year gain. (In 1982, heptachlor contamination caused milk receipts to plummet.) The floriculture industry retained the top spot among diversified commodities followed by macadamia nuts and milk.

SUMMARY: Acreage in crop and total farm acreage, by islands, 1982-86

Year	Sugarcane	Pineapples [1]	Vegetables and melons [2]	Fruits (excluding pineapples)	Coffee	Macadamia nuts	Miscellaneous crops [3]	Total farm acreage [4]
	1,000 acres							
	STATE [5]							
1982 ..	204.8	36.0	4.1	5.6	2.0	15.0	11.3	1,960
1983 ..	194.3	36.0	5.1	6.1	2.0	15.8	12.2	1,960
1984 ..	188.4	35.0	5.3	6.5	2.0	16.9	12.0	1,950
1985 ..	187.9	34.5	5.4	6.5	2.1	20.0	8.6	1,950
1986 ..	**184.3**	**36.0**	**5.4**	**6.8**	**2.3**	**21.3**	**5.1**	**1,950**
	HAWAII							
1982 ..	83.2		1.5	3.9	2.0	13.8	1.0	1,145
1983 ..	75.6		1.9	4.4	2.0	14.5	1.1	1,145
1984 ..	70.9		2.0	4.6	2.0	15.5	1.7	1,140
1985 ..	69.9		2.0	4.8	2.1	18.2	3.2	1,140
1986 ..	**69.1**		**1.9**	**5.2**	**2.3**	**19.4**	**2.6**	**1,140**
	KAUAI/NIIHAU							
1982 ..	44.9	*	.1	.7		[6]	.7	275
1983 ..	44.1	*	.1	.7		[6]	.7	275
1984 ..	43.9	*	.1	.9		[6]	.7	275
1985 ..	43.7	*	.1	.9		[6]	.7	275
1986 ..	**43.2**	*	**.1**	**.8**		[6]	**.5**	**275**
	MAUI/MOLOKAI/LANAI							
1982 ..	47.5	24.5	1.4	.2		[6]	8.9	420
1983 ..	47.4	24.5	1.8	.2		[6]	8.9	420
1984 ..	47.2	23.2	1.8	.2		[6]	9.0	420
1985 ..	47.2	23.0	1.9	.1		[6]	4.1	420
1986 ..	**46.1**	**24.0**	**2.0**	**.1**		[6]	**1.3**	**420**
	OAHU							
1982 ..	29.2	11.5	1.1	.8		[6]	.7	125
1983 ..	27.2	11.5	1.3	.8		[6]	1.5	125
1984 ..	26.4	11.8	1.4	.8		[6]	.6	120
1985 ..	27.1	11.5	1.4	.7		[6]	.6	120
1986 ..	**25.9**	**12.0**	**1.4**	**.7**		[6]	**.7**	**120**

* = Less than 500 acres.

[1] Land used for pineapple.
[2] Harvested acreage.
[3] Includes taro, seed corn, feed and forage crops (excluding pineapple feed products), and flowers, foliage and nursery products.
[4] Includes land not in crop and pasture such as farm house lots, roads, woodlots, etc.
[5] Sum of island estimates may not add to State total due to rounding.
[6] Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Number of crop farms, by islands, 1982-86

Year	Sugar	Pineapples	Vegetables and melons	Fruits (excluding pineapples)	Coffee	Macadamia nuts	Taro	Flowers and nursery products
				STATE				
1982 . .	285	18	620	700	620	550	127	650
1983 . .	230	18	683	724	610	600	155	680
1984 . .	185	18	677	800	615	605	137	670
1985 . .	155	18	715	805	620	610	155	670
1986 . .	**120**	**18**	**750**	**793**	**620**	**645**	**140**	**590**
				HAWAII				
1982 . .	274		241	424	620	545	45	310
1983 . .	219		300	445	610	595	67	320
1984 . .	174		310	520	615	595	57	315
1985 . .	144		340	535	620	600	72	305
1986 . .	**109**		**400**	**531**	**620**	**630**	**65**	**275**
				KAUAI				
1982 . .	5	3	52	82		2	49	25
1983 . .	5	3	62	80		2	54	25
1984 . .	5	3	62	81		4	50	25
1985 . .	5	3	60	80		4	48	30
1986 . .	**5**	**3**	**48**	**78**		**5**	**50**	**25**
				MAUI/MOLOKAI/LANAI				
1982 . .	3	13	78	37		2	29	80
1983 . .	3	13	80	50		2	25	85
1984 . .	3	13	80	48		3	20	80
1985 . .	3	13	75	45		3	23	85
1986 . .	**3**	**13**	**85**	**47**		**7**	**20**	**75**
				OAHU				
1982 . .	3	2	249	157		1	4	235
1983 . .	3	2	241	149		1	9	250
1984 . .	3	2	225	151		3	10	250
1985 . .	3	2	240	145		3	12	250
1986 . .	**3**	**2**	**217**	**137**		**3**	**5**	**215**

SUMMARY: Number of livestock operations and total number of farms, by islands, 1982-86 [1]

Year	Cattle [2]	Hogs	Milk	Eggs	Broilers	Honey	Total (non-duplicated) [3]
				STATE			
1982 . .	1,000	650	90	55	10	30	4,500
1983 . .	950	650	90	55	9	27	4,500
1984 . .	850	650	90	55	8	25	4,600
1985 . .	850	650	90	55	7	22	4,400
1986 . .	**800**	**600**	**90**	**55**	**8**	**20**	**4,200**
				HAWAII			
1982 . .	490	75	39	24		6	2,600
1983 . .	450	85	39	26		6	2,600
1984 . .	395	85	40	25		6	2,650
1985 . .	400	85	41	24		7	2,550
1986 . .	**365**	**80**	**41**	**25**		**6**	**2,425**
				KAUAI/NIIHAU			
1982 . .	190	115	14	4	2	12	375
1983 . .	180	120	12	4	1	11	375
1984 . .	165	125	13	4	1	10	375
1985 . .	165	120	13	4	1	8	375
1986 . .	**160**	**110**	**13**	**4**	**1**	**7**	**350**
				MAUI/MOLOKAI/LANAI			
1982 . .	230	100	15	6		5	525
1983 . .	235	115	16	6		5	525
1984 . .	215	105	16	6		4	550
1985 . .	205	110	16	7		4	550
1986 . .	**200**	**100**	**16**	**7**		**4**	**525**
				OAHU			
1982 . .	90	360	22	21	8	7	1,000
1983 . .	85	330	23	19	8	5	1,000
1984 . .	75	335	21	20	7	5	1,025
1985 . .	80	335	20	20	6	3	925
1986 . .	**75**	**310**	**20**	**19**	**7**	**3**	**900**

[1] End of year.
[2] Includes beef, dairy, and dairy replacement operations.
[3] Based on farm definition of $1,000 or more of agricultural sales.

SUMMARY: Volume of crop marketings, by islands, 1982-86

Year	Sugar (unprocessed cane)	Pineapples (fresh equivalent)	Vegetables and melons	Fruits (excluding pineapples)	Coffee (parchment)	Macadamia nuts (in shell)	Taro
	1,000 tons		1,000 pounds				
				STATE [1]			
1982 . .	8,808	670	72,740	70,820	990	36,720	6,460
1983 . .	8,926	722	89,400	78,640	2,800	36,420	5,440
1984 . .	8,454	600	87,350	99,430	1,750	37,700	6,310
1985 . .	7,916	565	89,620	80,980	1,850	42,000	6,860
1986 . .	**8,379**	**646**	**91,950**	**90,610**	**2,900**	**44,000**	**6,330**
				HAWAII			
1982 . .	3,780		34,510	55,000	990	36,600	880
1983 . .	3,840		40,100	67,170	2,800	36,200	740
1984 . .	3,420		38,170	75,320	1,750	37,500	795
1985 . .	2,686		37,130	64,030	1,850	41,400	1,010
1986 . .	**2,797**		**33,350**	**68,110**	**2,900**	**43,350**	**840**
				KAUAI			
1982 . .	1,869	*	1,620	8,150		[2]	4,360
1983 . .	1,667	*	2,040	5,000		[2]	3,450
1984 . .	1,599	*	1,890	16,450		[2]	4,350
1985 . .	1,802	*	1,690	10,430		[2]	4,780
1986 . .	**1,977**	*	**1,650**	**14,600**		[2]	**4,490**
				MAUI/MOLOKAI/LANAI			
1982 . .	1,853	467	25,230	2,270		[2]	[2]
1983 . .	2,232	509	32,820	2,530		[2]	[2]
1984 . .	2,283	419	32,730	1,420		[2]	[2]
1985 . .	2,208	358	35,590	1,260		[2]	[2]
1986 . .	**2,251**	**415**	**40,580**	**1,340**		[2]	[2]
				OAHU			
1982 . .	1,306	203	11,380	5,400		[2]	[2]
1983 . .	1,187	213	14,440	3,940		[2]	[2]
1984 . .	1,152	181	14,560	6,240		[2]	[2]
1985 . .	1,220	207	15,210	5,260		[2]	[2]
1986 . .	**1,354**	**231**	**16,370**	**6,560**		[2]	[2]

* = Less than 500 tons.

[1] Sum of Island estimates may not add to State total due to rounding of State estimates to 1,000 hundredweight of some crops included in United States totals.

[2] Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Volume of livestock marketings, by islands, 1982-86

Year	Beef (dressed weight) [1]	Pork (dressed weight)	Milk	Eggs	Broilers and chickens (ready-to-cook weight)	Honey
	1,000 pounds		Million pounds	Million	1,000 pounds	
			STATE [2]			
1982	29,048	8,557	106.4	202.2	8,571	920
1983	31,985	7,693	143.7	197.3	8,947	1,305
1984	32,116	7,878	146.0	209.7	8,102	1,089
1985	33,928	7,859	139.8	220.5	7,706	1,188
1986	**33,764**	**8,643**	**153.1**	**227.0**	**7,629**	**1,323**
			HAWAII			
1982	19,880	716	[3]	[3]	[3]	[3]
1983	20,827	731	[3]	[3]	[3]	[3]
1984	20,906	651	[3]	[3]	[3]	[3]
1985	21,824	700	[3]	[3]	[3]	[3]
1986	**22,500**	**748**	[3]	[3]	[3]	[3]
			KAUAI/NIIHAU			
1982	1,992	636	[3]	[3]	[3]	[3]
1983	2,228	572	[3]	[3]	[3]	[3]
1984	2,132	593	[3]	[3]	[3]	[3]
1985	2,118	689	[3]	[3]	[3]	[3]
1986	**2,099**	**990**	[3]	[3]	[3]	[3]
			MAUI/MOLOKAI			
1982	6,224	2,016	[3]	[3]	[3]	[3]
1983	7,115	1,802	[3]	[3]	[3]	[3]
1984	7,686	1,819	[3]	[3]	[3]	[3]
1985	8,447	1,803	[3]	[3]	[3]	[3]
1986	**8,175**	**1,798**	[3]	[3]	[3]	[3]
			OAHU			
1982	952	5,189	75.6	174.1	8,214	[3]
1983	1,815	4,588	112.2	165.1	[3]	[3]
1984	1,392	4,815	112.2	177.7	[3]	[3]
1985	1,539	4,667	107.0	186.4	[3]	[3]
1986	**989**	**5,107**	**116.5**	**189.7**	[3]	[3]

[1] Includes slaughter cattle but excludes calves shipped out-of-State.
[2] State totals may not add due to rounding.
[3] Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Value of crop sales, by islands, 1982-86

Year	Sugar (unprocessed cane)	Pineapples (fresh equivalent)	Vegetables and melons	Fruits (excluding pineapples)	Coffee (parchment)
			1,000 dollars		
			STATE		
1982 . .	230,800	94,364	23,024	14,834	2,129
1983 . .	266,900	100,376	25,996	14,563	6,300
1984 . .	256,200	89,928	26,609	13,315	[1]4,813
1985 . .	222,400	90,530	30,034	12,794	5,180
1986 . .	**233,800**	**99,720**	**29,877**	**16,606**	**8,700**
			HAWAII		
1982 . .	86,900		10,792	11,473	2,129
1983 . .	100,000		10,731	12,412	[1]6,300
1984 . .	94,000		10,384	9,360	4,813
1985 . .	69,800		12,486	9,284	5,180
1986 . .	**74,100**		**11,965**	**12,381**	**8,700**
			KAUAI		
1982 . .	51,000	*	601	1,447	
1983 . .	52,400	*	672	634	
1984 . .	52,400	*	594	1,913	
1985 . .	53,300	*	608	1,697	
1986 . .	**54,000**	*	**605**	**2,112**	
			MAUI/MOLOKAI/LANAI		
1982 . .	55,000	38,602	6,356	495	
1983 . .	73,500	45,099	8,032	503	
1984 . .	72,600	42,176	9,088	343	
1985 . .	63,600	36,380	9,731	255	
1986 . .	**67,500**	**45,540**	**9,788**	**311**	
			OAHU		
1982 . .	37,900	55,762	5,275	1,419	
1983 . .	41,000	55,277	6,561	1,014	
1984 . .	37,200	47,752	6,543	1,699	
1985 . .	35,700	54,150	7,209	1,558	
1986 . .	**38,200**	**54,180**	**7,519**	**1,802**	

See footnotes at end of table.

Continued

SUMMARY: Value of crop sales, by islands, 1982-86 -- Continued

Year	Macadamia nuts (in shell)	Taro	Field crops (not estimated separately) [2]	Flowers and nursery products [3]	Total crops [4]
			1,000 dollars		
			STATE		
1982	27,136	1,447	4,376	30,600	428,860
1983	23,928	1,229	6,277	36,165	481,934
1984	26,088	1,382	6,062	38,905	[1]463,502
1985	30,450	1,578	8,198	44,162	445,526
1986	**35,200**	**1,462**	**6,595**	**49,094**	**481,254**
			HAWAII		
1982	27,047	197	12	13,559	152,244
1983	23,783	185	39	14,316	167,951
1984	25,950	205	142	16,944	[1]161,983
1985	30,015	290	2,615	19,605	149,460
1986	**34,680**	**236**	**909**	**22,775**	**165,931**
			KAUAI		
1982	[5]	972	1,379	299	55,754
1983	[5]	762	1,722	421	56,648
1984	[5]	918	1,716	788	58,351
1985	[5]	1,032	1,716	1,179	59,554
1986	[5]	**1,010**	**1,648**	**1,134**	**60,531**
			MAUI/MOLOKAI/LANAI		
1982	[5]	[5]	2,759	3,925	107,416
1983	[5]	[5]	3,977	4,489	135,934
1984	[5]	[5]	3,832	4,546	132,898
1985	[5]	[5]	3,487	5,188	119,249
1986	[5]	[5]	**3,539**	**5,191**	**132,536**
			OAHU		
1982	[5]	[5]	226	12,817	113,446
1983	[5]	[5]	539	16,939	121,401
1984	[5]	[5]	372	16,627	110,270
1985	[5]	[5]	380	18,190	117,263
1986	[5]	[5]	**499**	**19,994**	**122,256**

* = Less than $50,000.

[1] Revised.
[2] Forage and grain crops.
[3] Flowers, foliage, and nursery products.
[4] Total crop values shown for individual islands are actual. Sum of individual commodities may not add to total. Forest product's value combined and included in total crop value.
[5] Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Value of livestock sales, total value of crop and livestock sales, and government payments, by islands, 1982-86

Year	Cattle [1]	Hogs [1]	Milk	Eggs	Broilers and chickens	Other [2]	Total livestock [3]	Total crops and livestock	Government payments [4]
	1,000 dollars								
	STATE								
1982 ..	27,619	8,465	21,908	14,542	5,240	634	78,408	507,268	586
1983 ..	29,308	7,775	28,869	14,041	5,529	966	86,488	568,422	6,775
1984 ..	28,101	8,088	29,288	15,535	5,189	814	87,015	[5]550,517	2,675
1985 ..	26,632	7,995	28,310	14,020	4,895	971	82,823	528,349	1,184
1986 ..	**24,645**	**8,770**	**30,605**	**13,450**	**4,744**	**1,215**	**83,429**	**564,683**	**2,810**
	HAWAII								
1982 ..	18,907	758	[6]	[6]	[6]	464	23,777	176,021	476
1983 ..	18,831	785	[6]	[6]	[6]	723	23,873	191,824	401
1984 ..	18,126	729	[6]	[6]	[6]	535	23,233	[5]185,216	458
1985 ..	16,870	760	[6]	[6]	[6]	662	22,122	171,582	508
1986 ..	**16,385**	**778**	[6]	[6]	[6]	**846**	**22,086**	**188,017**	**204**
	KAUAI/NIIHAU								
1982 ..	1,913	683	[6]	[6]	[6]	22	4,724	60,478	27
1983 ..	2,139	633	[6]	[6]	[6]	45	5,111	61,759	101
1984 ..	2,041	668	[6]	[6]	[6]	106	5,203	63,554	47
1985 ..	1,860	758	[6]	[6]	[6]	117	5,071	64,625	44
1986 ..	**1,734**	**1,069**	[6]	[6]	[6]	**191**	**5,204**	**65,735**	**20**
	MAUI/MOLOKAI/LANAI								
1982 ..	6,043	2,110	[6]	[6]	[6]	105	11,358	118,774	64
1983 ..	6,893	1,922	[6]	[6]	[6]	151	12,393	148,327	96
1984 ..	6,889	1,940	[6]	[6]	[6]	125	12,521	145,419	94
1985 ..	6,820	1,935	[6]	[6]	[6]	149	12,215	131,464	598
1986 ..	**5,926**	**1,918**	[6]	[6]	[6]	**136**	**11,706**	**144,242**	**2,563**
	OAHU								
1982 ..	756	4,914	15,687	12,160	4,989	43	38,549	151,995	19
1983 ..	1,445	4,435	22,496	11,412	[6]	47	45,111	166,512	6,177
1984 ..	1,045	4,751	22,485	12,809	[6]	48	46,058	156,328	2,076
1985 ..	1,082	4,542	21,710	11,477	[6]	43	43,415	160,678	34
1986 ..	**600**	**5,005**	**23,358**	**11,022**	[6]	**42**	**44,433**	**166,689**	**23**

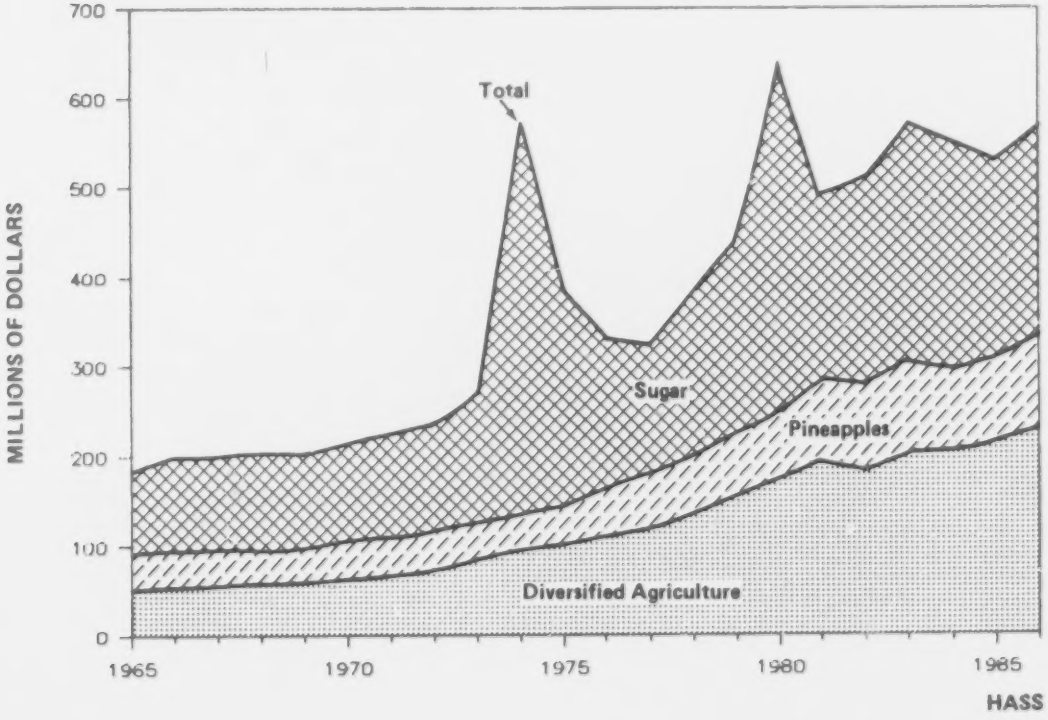
[1] Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.
[2] Includes sheep, wool, turkeys, horses, honey, and beeswax.
[3] Sum of individual commodities may not add to total.
[4] Includes all government payments, such as Agricultural Conservation Program, Cattle Indemnity Payment Program, Dairy Indemnity Payment Program, Emergency Conservation Program, Forestry Incentives Program, Emergency Feed Program, wool payments, and sugar support.
[5] Revised.
[6] Island data not shown separately to avoid disclosure of individual operations but combined and included in State total

Diversified agriculture ranked by value, State of Hawaii, 1984-86

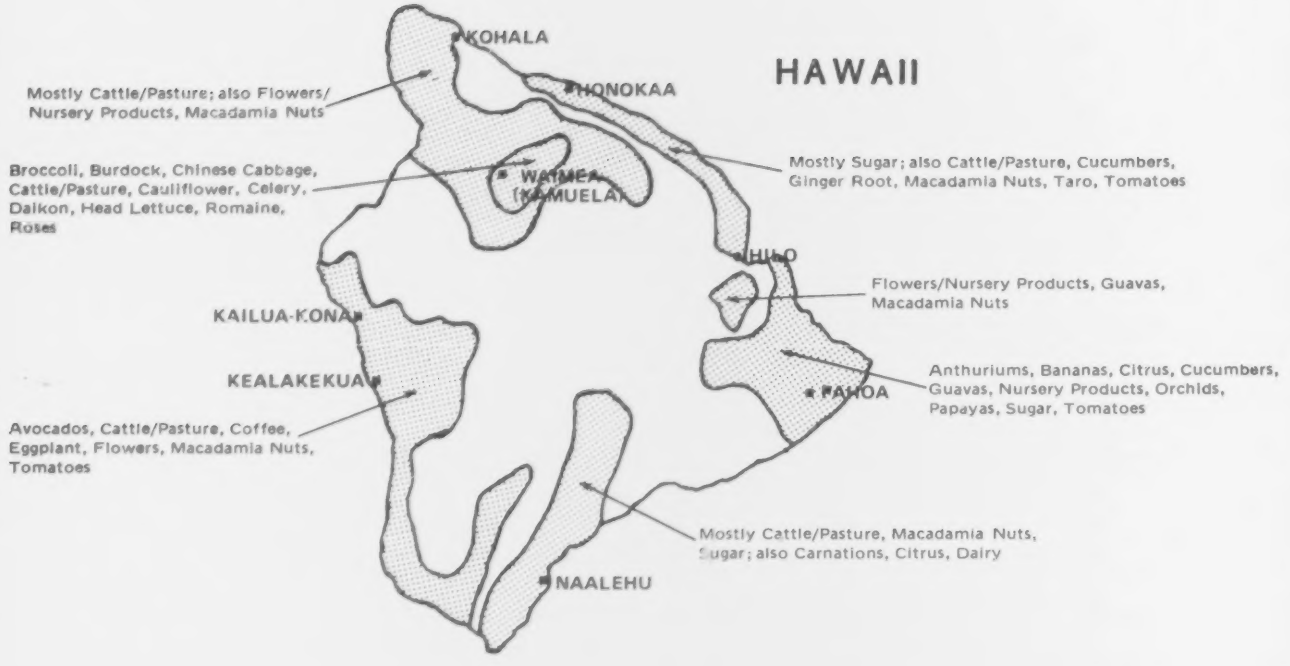
Crops	Rank			Value of production			Percent of diversified agriculture		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
	Number			1,000 dollars			Percent		
Flowers and nursery products	1	1	1	38,905	44,162	49,094	19.0	20.5	21.2
Macadamia nuts	5	2	2	26,088	30,450	35,200	12.8	14.1	15.2
Milk	2	4	3	29,288	28,310	30,605	14.3	13.1	13.3
Vegetables and melons	4	3	4	26,609	30,034	29,877	13.0	14.0	12.9
Cattle	3	5	5	28,101	26,632	24,645	13.7	12.4	10.7
Fruits (excluding pineapple)	7	7	6	13,315	12,794	16,606	6.5	5.9	7.2
Eggs	6	6	7	15,535	14,020	13,450	7.6	6.5	5.8
Hogs	8	9	8	8,088	7,995	8,770	4.0	3.7	3.8
Coffee	11	11	9	[1]4,813	5,180	8,700	2.4	2.4	3.8
Forage, grain, and forest products	9	8	10	6,262	8,398	6,795	3.1	3.9	2.9
Broilers and chickens	10	10	11	5,189	4,895	4,744	2.5	2.3	2.1
Taro	12	12	12	1,382	1,578	1,462	.7	.7	.6
Other livestock	13	13	13	814	971	1,215	.4	.5	.5
TOTAL				204,389	215,419	231,163	100.0	100.0	100.0

[1] Revised.

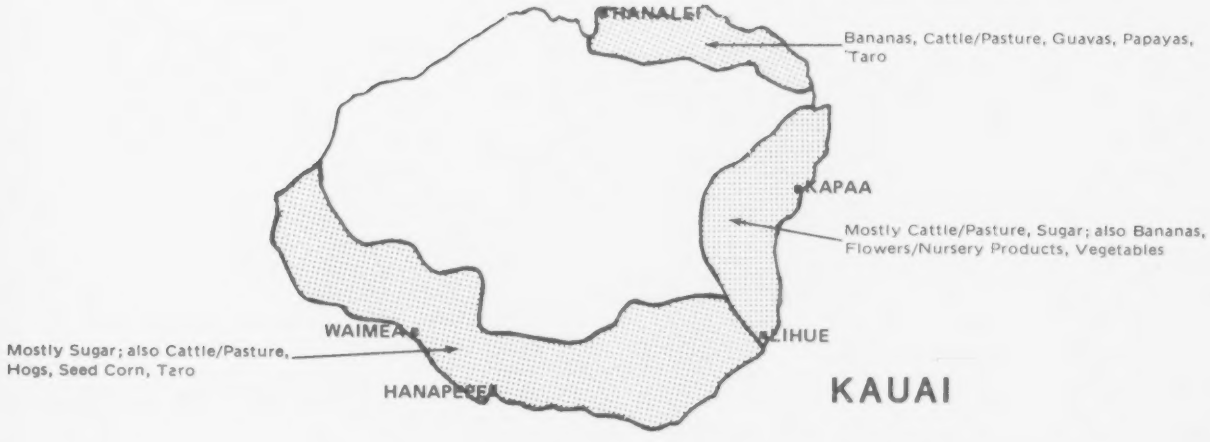
CASH RECEIPTS OF AGRICULTURAL COMMODITIES, STATE OF HAWAII, 1965-86

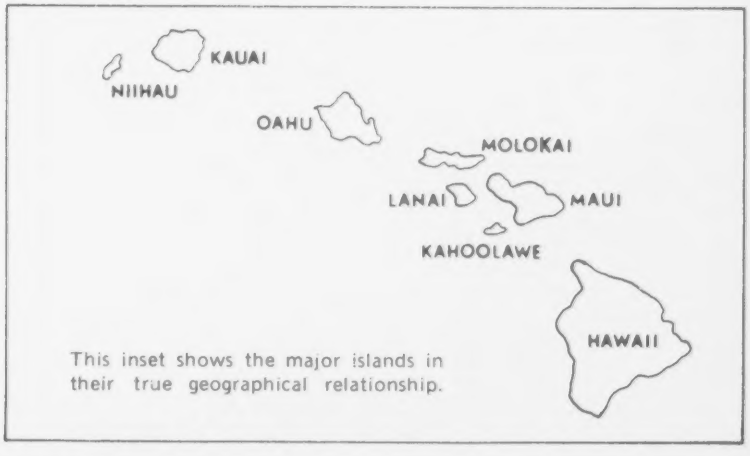


MAJOR AGRICULTURAL AREAS, STATE OF HAWAII, 1986


HAWAII
KOHALA
HONOKAA
WAIMEA (KAMUELA)
HILO
PAHOA
KAILUA-KONA
KEALAKEKUA
NAALEHU
Mostly Cattle/Pasture; also Flowers/ Nursery Products, Macadamia Nuts
Broccoli, Burdock, Chinese Cabbage, Cattle/Pasture, Cauliflower, Celery, Daikon, Head Lettuce, Romaine, Roses
Mostly Sugar; also Cattle/Pasture, Cucumbers, Ginger Root, Macadamia Nuts, Taro, Tomatoes
Flowers/Nursery Products, Guavas, Macadamia Nuts
Anthuriums, Bananas, Citrus, Cucumbers, Guavas, Nursery Products, Orchids, Papayas, Sugar, Tomatoes
Avocados, Cattle/Pasture, Coffee, Eggplant, Flowers, Macadamia Nuts, Tomatoes
Mostly Cattle/Pasture, Macadamia Nuts, Sugar; also Carnations, Citrus, Dairy

MAUI
Mostly Pineapple, Sugar; also Cattle/Pasture, Flowers/Nursery Products, Hogs, Macadamia Nuts
Sugar, Pineapple
LAHAINA
WAILUKU
KAHULUI
Head Cabbage, Carnations, Cattle/Pasture, Dairy, Head Lettuce, Nursery Products, Dry Onions, Protea, Romaine, Tomatoes
KIHEI
KULA
HANA
Cattle/Pasture
Mostly Cattle/Pasture; also Bananas, Flowers/Nursery Products, Papayas
Mostly Cattle/Pasture, Pineapple; also Snap Beans, Hay, Hogs, Nursery Products, Green Peppers, Seed Corn, Sweetpotatoes, Watermelon
MOLOKAI
KAUNAKAKAI
LANAI
LANAI CITY
Pineapples


HANALEI
Bananas, Cattle/Pasture, Guavas, Papayas, Taro
KAPAA
Mostly Cattle/Pasture, Sugar; also Bananas, Flowers/Nursery Products, Vegetables
WAIMEA
LIHUE
Mostly Sugar; also Cattle/Pasture, Hogs, Seed Corn, Taro
HANAPEPE
KAUAI


KAUAI
NIIHAU
OAHU
MOLOKAI
LANAI
MAUI
KAHOOLAWE
HAWAII
This inset shows the major islands in their true geographical relationship.

1986 CROP SUMMARY

Principal crops ranked by value, State of Hawaii, 1984-86

Crops	Rank			Value of production			Percent of all crops		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
	Number			1,000 dollars			Percent		
Sugar	1	1	1	256,200	222,400	233,800	55.3	49.9	48.6
Pineapple	2	2	2	89,928	90,530	99,720	19.4	20.3	20.7
Macadamia nuts	3	3	3	26,088	30,450	35,200	5.6	6.8	7.3
Potted foliage plants	4	4	4	10,050	12,019	12,931	2.2	2.7	2.7
Papayas	5	5	5	9,196	8,579	11,123	2.0	1.9	2.3
Anthuriums	6	6	6	7,351	7,645	9,878	1.6	1.7	2.1
Coffee	8	7	7	[1]4,813	5,180	8,700	1.0	1.2	1.8
Seed corn	7	8	8	5,150	5,170	5,440	1.1	1.2	1.1
Ginger root	13	9	9	2,280	4,465	4,779	.5	1.0	1.0
Bananas	10	12	10	2,670	2,472	2,910	.6	.6	.6
Tomatoes	9	10	11	3,103	3,136	2,747	.7	.7	.6
Other nursery products	12	16	12	2,311	2,164	2,493	.5	.5	.5
Lettuce	11	13	13	2,458	2,341	2,366	.5	.5	.5
Landscape foliage	21	18	14	1,245	1,812	2,215	.3	.4	.5
Roses, all	17	17	15	1,556	1,956	2,187	.3	.4	.5

[1] Revised.

VEGETABLE and **MELON** farmers produced a record output of 92.0 million pounds in 1986, up 3 percent from the previous year. Although many of Hawaii's vegetables registered a reduction in production, increases by 9 major crops offset all declines. **WATERMELONS** led all vegetables and melons, posting a 63 percent gain to a record 14.3 million pounds. **HEAD CABBAGE, GREEN PEPPERS, GINGER ROOT,** and **SWEETPOTATOES** were some of the other leading crops to show increased production during the year. Principal crops to show declines in output were **CHINESE CABBAGE, CUCUMBERS, LETTUCES, DRY ONIONS,** and **TOMATOES.**

MACADAMIA NUT marketings cracked the previous record by achieving a harvest of 44.0 million pounds (in-shell) during the 1986-87 season, up 5 percent from the 1985-86 season. Good crop growing conditions, and a record bearing area of 14,400 acres were responsible for the increased marketings. Farm prices averaged a record 80.0 cents per pound (in-shell basis) for marketed nuts during the 1986-87 season. The industry's highest-ever output and farm price combined to produce a record farm value of $35,200,000.

PINEAPPLE harvesting for both the fresh and processed markets totaled 646,000 tons in 1986, up 14 percent from 1985. Improved weather, increased acreage devoted to the crop, and the wider application of drip irrigation are credited with boosting last year's output.

RAW SUGAR production increased to 1,043,000 tons in 1986, up 3 percent from 1985. A record sugarcane yield of 100.2 tons per acre and a 1 percent increase in harvested acreage are major reasons for the boost in raw sugar production. The sugar industry also achieved its highest-ever sugar yield during 1986 at 12.5 tons per acre. Higher farm returns for raw sugar and commercial molasses coupled with increased production in both sectors boosted the total value of production to $361.9 million, up 6 percent from a year ago.

COFFEE production reached its highest level in 13 seasons with 2.9 million pounds (parchment basis) during the 1986-87 season. Good weather at crucial times, a 21 percent increase in harvested acreage, and a record farm price were the main reasons for the boost in production.

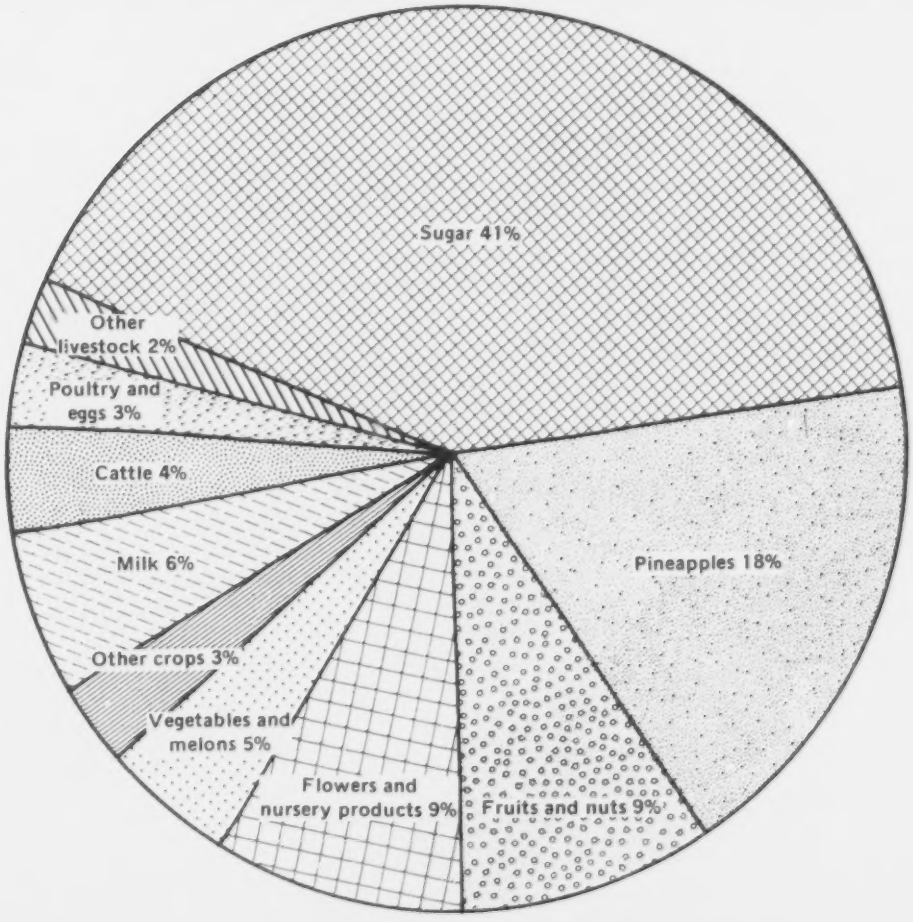
FRUIT (excluding **PINEAPPLE**) production during 1986 totaled 90.6 million pounds, up 12 percent from 1985. Leading the way was a record **GUAVA** crop of 17.1 million pounds, an 80 percent increase from 1985. Improved cultural practices and strong market demand were mainly responsible for guava's impressive year. **BANANA** production, helped by an increase in harvested acreage, also established a new record at 9.7 million pounds. **PAPAYAS**, the dominant fruit in this category, had total production of 61.0 million pounds, up 1 percent from 1985. While fresh papaya sales increased 2 percent from 1985, the amount of papayas used for processing suffered its third consecutive year of decline.

TARO production is pegged at 6.3 million pounds for 1986, down 8 percent from 1985. A combination of ill-timed weather, disease, a reduction in acreage, and periodic shortages of water are responsible for the overall decline in output.

Boosted by increases from all major segments of the **FLORICULTURE** industry, Hawaii's growers sold a record $49.1 million of flowers and nursery products during 1986. Although part of the 11 percent increase from 1985 can be attributed to a change in definition (affecting primarily cut flowers which are now on a wholesale basis with the rest of the industry), it was still the best year ever.

Sales of foliage, valued at $17.9 million, (potted, unfinished, and cut) continued to be the leading contributor with a 37 percent share of the total. Cut flowers (excluding orchids), riding on the strength of anthuriums and other tropicals such as birds of paradise, heliconia, and ginger added another $15.6 million. Record dendrobium sales (cut sprays and potted), at $3.5 million, offset declines in other orchid categories and pushed the total wholesale value of orchids to $5.9 million.

STATE OF HAWAII, 1986 AGRICULTURAL VALUE RATIOS



HASS

1986 WEATHER SUMMARY

WEATHER provided a wide spectrum of conditions for farmers to contend with throughout 1986. The dry winter, which began during late 1985, continued into the first quarter of 1986. Many climatic stations around the State recorded below normal rainfall and dwindling reservoir levels in some areas of Hawaii island prompted water conservation measures. In and around the Hilo area, a mid-February windstorm caused extensive damage to agricultural structures, tree crops and nurseries. By mid-March water use restrictions spread to other islands as dry conditions persisted. Strong winds, combined with heavy April rains, resulted in poor crop progress, particularily among vine, bush and tree crops but the rains helped to alleviate the dry spell which allowed water use restrictions to be lifted. Rough seas during this period interrupted inter-island barge schedules disrupting shipments of agricultural commodities to market. Uncertainties in inter-island barge service surfaced again in June, this time due to failing union contract negotiations. Summer's weather was generally fair with occasional daily record high temperatures. High temperatures made September one of the hottest of record; and, together with low precipitation, limited crop progress, especially among leafy vegetables. A return to a more normal weather pattern occurred during the last quarter of the year, with the increased rainfall raising reservoir levels and replenishing soil moisture supplies of field crops, orchards and pastures grown on non-irrigated land. Slowdown of farm activities was common as heavy showers and strong winds buffeted the islands.

WEATHER: Precipitation, selected stations, State of Hawaii, 1986 [1]

STATIONS	YEAR & NORMAL	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual	% OF NORMAL
ISLAND OF HAWAII															
Hawaii National Park Hq. 54	Normal	10.61	10.23	11.75	10.10	7.75	4.67	5.23	7.20	4.58	6.89	11.47	12.33	102.81	
	1986	2.95	1.25	5.95	33.91	6.82	7.80	13.90	8.64	9.70	4.49	23.05	2.25	120.71	117.4
Kaauhuhu 167.2 [2]	1986	12.07	10.36	19.65	19.28	5.26	6.53	4.65	3.62	.40	5.23	5.71	7.93	100.69	
Hilo (285)	Normal	9.07	12.90	13.69	12.88	10.07	6.61	9.54	10.88	7.44	10.96	13.77	15.76	133.57	
	1986	5.40	.50	15.20	43.40	5.80	11.30	10.40	9.80	15.40	11.70	34.50	6.50	169.90	127.2
Kealakekua (HI84)	Normal	3.50	2.40	3.80	4.10	5.90	6.10	6.80	8.70	8.00	6.20	3.60	2.10	61.20	
	1986	2.60	4.70	.40	1.50	5.80	9.20	6.10	1.00	5.90	6.90	.40	1.70	46.20	75.5
Naalehu 14	Normal	7.97	5.85	5.53	2.70	2.18	1.79	1.58	3.92	3.36	3.88	5.21	4.57	48.54	
	1986	.30	.36	1.09	14.03	5.44	.44	13.52	3.53	8.77	1.85	13.64	1.58	64.55	133.0
Pahoa (HI83)	Normal	11.02	13.17	15.16	12.59	11.87	8.10	10.20	11.13	8.50	11.81	14.28	17.28	145.11	
	1986	5.40	.50	10.20	39.10	6.00	9.40	4.00	5.40	14.60	9.40	34.70	6.20	144.90	99.9
Waimea (HI86)	Normal	4.21	3.78	3.97	3.55	2.20	1.57	2.31	2.52	1.07	2.03	2.78	4.84	34.83	
	1986	9.20	3.50	4.70	12.10	2.10	8.00	2.30	1.90	1.30	4.00	5.00	10.70	64.80	186.0
ISLAND OF KAUAI															
Eleele 927	Normal	5.74	3.39	3.28	2.39	1.74	1.10	1.33	1.79	1.40	2.61	3.60	5.12	33.49	
	1986	.78	1.14	.45	2.86	2.15	.90	3.93	1.22	3.73	1.18	2.53	1.32	22.19	66.3
Kekaha 944	Normal	4.63	2.57	2.37	1.56	1.04	.25	.39	.75	.74	1.72	2.18	4.24	22.44	
	1986	1.08	1.82	.13	1.19	1.89	.35	1.72	1.09	3.71	1.07	1.23	.25	15.53	69.2
Wailua (HI40)	Normal	9.42	7.09	8.28	7.07	5.45	4.07	5.68	6.60	4.65	7.45	9.03	9.41	84.20	
	1986	1.00	1.00	7.00	7.00	8.70	6.40	8.00	9.20	9.90	5.80	12.50	4.90	81.40	96.7
ISLAND OF LANAI															
Lanai Airport (LNY)	Normal	5.50	1.40	1.60	.90	.70	.20	.50	.60	.70	1.60	1.20	2.30	17.20	
	1986	--	4.01	3.57	.36	--	--	--	.22	.93	.64	1.17	1.06	11.96	69.5
ISLAND OF MAUI															
Hamakuapoko HC & S 485	Normal	5.10	4.85	5.81	4.50	2.83	.39	3.60	3.65	1.89	3.69	5.07	6.73	50.11	
	1986	2.94	1.67	7.56	6.92	3.80	3.84	2.08	2.92	.14	3.71	6.27	4.72	46.57	92.9
Hana Airport 355	Normal	9.47	7.93	8.85	7.14	5.70	3.82	5.28	5.78	4.85	6.48	8.16	6.76	80.22	
	1986	4.73	1.31	10.42	5.59	6.92	6.35	5.60	6.58	2.90	6.68	9.89	4.91	71.88	89.6
Kihei 311	Normal	3.67	1.76	2.03	.79	.27	.10	.15	.19	.07	.68	1.69	2.39	13.79	
	1986	.50	1.83	.69	1.13	.20	.00	.17	.00	.00	.07	.96	1.70	7.25	52.6
Kula (HI65)	Normal	5.64	3.45	3.53	2.98	2.20	1.41	2.17	2.07	1.93	1.91	2.95	3.61	33.85	
	1986	.20	6.60	1.30	2.70	3.60	.50	1.00	.10	.00	.00	.10	5.00	21.10	62.3
Lahaina 361	Normal	3.70	1.65	2.04	.93	.48	.09	.21	.33	.23	.90	2.07	2.86	15.49	
	1986	.02	2.92	.05	1.32	.07	.00	.46	.14	.20	.23	.95	1.02	7.38	47.6
Wailuku (HI66)	Normal	4.88	3.81	4.16	2.41	1.02	.43	.74	.77	.49	1.86	2.79	4.65	28.01	
	1986	3.00	4.00	7.30	4.40	2.30	1.80	.40	.40	.30	2.00	3.20	3.40	32.50	116.0
ISLAND OF MOLOKAI															
Molokai Airport (MKK)	Normal	4.64	2.84	3.90	1.90	1.14	.48	.74	.76	.70	1.59	3.48	4.37	26.54	
	1986	2.10	1.90	1.90	1.60	.20	.30	.70	.20	.90	1.70	.50	2.40	14.40	54.3
ISLAND OF OAHU															
Kahuku (HI09)	Normal	4.40	3.10	4.40	2.90	1.90	1.30	1.70	2.10	1.90	2.50	3.40	4.10	33.70	
	1986	.80	3.50	2.20	2.90	.80	1.20	2.80	.90	3.50	2.50	6.90	2.60	30.60	90.8
Waialua 847	Normal	4.99	3.65	3.84	2.32	1.34	.44	.95	1.26	.67	2.27	3.15	4.64	29.52	
	1986	.93	2.19	2.37	1.80	.91	1.31	5.98	.74	3.88	1.75	4.93	3.21	30.00	101.6
Waianae (HI17)	Normal	3.79	3.13	2.31	1.12	.61	.35	.38	.84	.77	1.87	1.81	2.66	19.64	
	1986	.40	2.70	+	.30	1.10	.60	1.90	+	1.50	1.40	1.50	.40	11.80	60.1
Waimanalo Exp. 795.1	Normal	8.35	3.98	5.80	4.11	2.83	1.22	1.92	1.88	1.81	3.59	6.31	6.26	48.06	
	1986	2.63	3.55	1.08	.85	.58	1.31	3.29	2.20	3.09	3.22	9.55	3.48	34.83	72.5
Waipahu Sugar 750	Normal	5.00	2.71	3.20	1.88	1.20	.36	.76	.92	.84	2.04	3.35	4.09	26.35	
	1986	.27	1.56	.64	.90	.90	.80	1.86	.76	2.13	1.13	5.35	2.44	18.74	71.1

[1] -- = No record. Data not recorded, determined unreliable by quality control checks, or not received in time for publication. + = Amount less than 0.05.
[2] New station.
Source: U. S. Department of Commerce, National Oceanic and Atmospheric Administration.

SUGARCANE: Number of farms, acreage, yield, production, price, and value, by islands, 1982-86 [1]

Year	Farms [2]	Acreage		Yield per acre (cane) [3]	Production of cane for sugar	Farm price [3]	Value of cane for sugar [4]
		In crop [2]	Harvested for sugar				
	Number	1,000 acres		Tons	1,000 tons	Dollars per ton	Million dollars
				STATE			
1982 ..	285	204.8	89.3	98.6	8,808	26.20	230.8
1983 ..	230	194.3	92.8	96.2	8,926	29.90	266.9
1984 ..	185	188.4	89.5	94.5	8,454	30.30	256.2
1985 ..	155	187.9	83.0	95.4	7,916	28.10	222.4
1986 ..	**120**	**184.3**	**83.6**	**100.2**	**8,379**	**27.90**	**233.8**
				HAWAII			
1982 ..	274	83.2	35.1	107.8	3,780	23.00	86.9
1983 ..	219	75.6	35.7	107.6	3,840	26.00	100.0
1984 ..	174	70.9	33.6	101.8	3,420	27.50	94.0
1985 ..	144	69.9	28.7	93.6	2,686	26.00	69.8
1986 ..	**109**	**69.1**	**28.7**	**97.5**	**2,797**	**26.50**	**74.1**
				KAUAI			
1982 ..	5	44.9	20.9	89.5	1,869	27.30	51.0
1983 ..	5	44.1	21.1	79.0	1,667	31.40	52.4
1984 ..	5	43.9	21.0	76.1	1,599	32.80	52.4
1985 ..	5	43.7	21.0	85.8	1,802	29.60	53.3
1986 ..	**5**	**43.2**	**20.9**	**94.6**	**1,977**	**27.30**	**54.0**
				MAUI			
1982 ..	3	47.5	19.2	96.3	1,853	29.70	55.0
1983 ..	3	47.4	22.3	100.1	2,232	32.90	73.5
1984 ..	3	47.2	22.5	101.5	2,283	31.80	72.6
1985 ..	3	47.2	22.4	98.6	2,208	28.80	63.6
1986 ..	**3**	**46.1**	**21.9**	**102.8**	**2,251**	**30.00**	**67.5**
				OAHU			
1982 ..	3	29.2	14.1	92.7	1,306	29.00	37.9
1983 ..	3	27.2	13.7	86.6	1,187	34.50	41.0
1984 ..	3	26.4	12.4	92.9	1,152	32.40	37.2
1985 ..	3	27.1	10.9	111.9	1,220	29.30	35.7
1986 ..	**3**	**25.9**	**12.1**	**111.9**	**1,354**	**28.20**	**38.2**

[1] Primary data source, Hawaiian Sugar Planters' Association.
[2] At end of year.
[3] Yield and farm price may not compute exactly due to rounding.
[4] Value of cane for sugar estimated by deducting processing and marketing costs from value of sugar and molasses. Processing costs based on toll charges paid by independent producers.

SUGAR: Production of raw sugar and molasses, price, and value, by islands, 1982-86 [1]

Year	Mill production		Average returns received [3]		Value of production		
	Raw sugar 96°	Molasses [2]	Raw sugar 96°	Molasses [2]	Raw sugar 96°	Molasses [2]	Total
	1,000 tons		Dollars per ton		Million dollars		
				STATE			
1982	983	287	350	27.60	343.9	7.6	351.5
1983	1,044	292	380	47.00	396.5	13.7	410.2
1984	1,062	298	360	33.80	382.9	10.1	393.0
1985	1,012	256	328	34.80	331.9	8.9	340.8
1986	**1,043**	**285**	**334**	**47.50**	**348.4**	**13.5**	**361.9**
				HAWAII			
1982	369	99	350	27.60	129.0	2.8	131.8
1983	392	105	379	46.80	148.6	4.9	153.5
1984	391	109	360	33.20	140.6	3.6	144.2
1985	319	78	327	35.40	104.3	2.8	107.1
1986	**329**	**85**	**333**	**48.50**	**109.6**	**4.1**	**113.7**
				KAUAI			
1982	217	63	351	27.10	76.2	1.6	77.8
1983	204	63	381	46.30	77.9	2.9	80.8
1984	217	62	361	34.30	78.3	2.1	80.4
1985	242	61	328	35.10	79.4	2.1	81.5
1986	**241**	**67**	**334**	**47.40**	**80.5**	**3.2**	**83.7**
				MAUI			
1982	235	79	351	28.00	82.2	2.2	84.4
1983	287	85	381	47.50	109.2	4.0	113.2
1984	300	87	362	34.10	108.4	3.0	111.4
1985	290	83	328	34.60	95.1	2.9	98.0
1986	**303**	**88**	**334**	**47.00**	**101.2**	**4.1**	**105.3**
				OAHU			
1982	162	46	349	27.90	56.5	1.0	57.5
1983	161	39	379	47.70	60.8	1.9	62.7
1984	154	40	361	34.10	55.6	1.4	57.0
1985	161	34	330	33.60	53.1	1.1	54.2
1986	**170**	**45**	**336**	**47.00**	**57.1**	**2.1**	**59.2**

[1] Primary data source, Hawaiian Sugar Planters' Association.
[2] Commercial.
[3] Derived from production and value. State and island prices may not compute exactly due to rounding.

FLORICULTURE AND NURSERY PRODUCTS: State of Hawaii, 1982-86

Commodity	Farms having sales					Number sold					Value of sales				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Number										1,000 dollars				
Selected cut flowers: (000 dozens)															
Anthuriums	225	210	205	195	175	1,984	2,054	2,335	2,305	2,335	5,633	6,035	7,351	7,645	9,878
Birds of Paradise	30	37	50	61	46	17	34	51	35	78	58	110	186	213	325
Carnations, miniature (000 bunches) [1]					9					85					179
Carnations, standard	9	10	12	16	12	36	79	91	151	41	80	179	219	326	133
Chrysanthemums, pompon (000 bunches)	17	14	14	14	14	439	448	457	455	353	546	641	690	833	547
Chrysanthemums, other	3	3	1	4	5	2	7	5	5	13	9	27	20	23	76
Ginger, red	51	50	60	65	52	64	68	82	78	85	205	207	267	246	355
Ginger, other [2]					19					50					282
Heliconia [3]				34	58				31	77				125	391
Roses, Sweetheart [4]					6					95					215
Roses, Tea	6	7	8	10	9	478	561	453	645	548	1,381	1,761	1,556	1,956	1,972
Protea (000 stems)	23	26	30	35	18	984	1,025	1,052	975	983	411	435	470	639	656
Other NSS	61	60	75	71	35	NA	NA	NA	NA	NA	406	511	1,162	1,155	619
Orchids:															
Cut: (000 flowers)															
Cattleyas	28	26	21	25	14	67	56	48	54	31	54	49	41	66	31
Cymbidiums	17	14	17	18	16	736	577	552	530	367	224	173	213	170	165
Dendrobium sprays (000 dozens)	56	60	71	74	60	78	123	208	291	314	440	774	1,278	1,687	2,115
Other NSS [5]	24	29	29	26	16	NA	NA	NA	NA	NA	83	120	145	54	6
Potted: (000 pots)															
Dendrobiums	91	90	84	88	52	186	229	208	201	235	777	1,032	854	1,061	1,430
Other orchids	66	65	71	71	49	312	328	375	365	310	1,415	1,588	1,836	2,263	2,161
Lei flowers: (Mil. blooms)															
Carnations	29	23	20	19	19	33.7	35.9	33.6	31.0	25.3	1,206	1,304	1,112	1,149	935
Vanda, Miss Joaquim	31	28	28	23	21	42.5	40.6	25.0	24.0	26.1	1,185	1,226	980	1,015	899
Plumeria	21	18	17	22	19	31.9	30.5	25.4	21.8	24.4	446	460	484	432	422
Tuberose	7	6	6	8	6	18.2	27.0	28.0	36.0	38.0	382	758	720	1,149	1,075
Dendrobiums	37	42	37	44	42	6.5	7.6	10.5	18.0	18.0	179	234	314	458	488
Pikake (000 strands)	16	17	15	20	18	118	124	110	134	182	155	163	160	220	258
Other [2]					20					NA					183
Foliage:															
Potted:															
Primarily for indoor or patio use [6]	90	80	85	110	73	NA	NA	NA	NA	NA	8,820	10,836	10,050	12,019	12,931
Primarily for landscape use	41	40	45	45	35	NA	NA	NA	NA	NA	930	845	1,245	1,812	2,215
Unfinished stock: (for further growing on)	29	24	20	29	25	NA	NA	NA	NA	NA	1,233	1,430	1,525	1,845	2,031
Cut:															
Ti leaves (Mil. leaves)	55	60	54	53	37	10.5	10.6	13.3	12.7	12.7	279	375	507	491	534
Other greens	30	33	40	51	36	NA	NA	NA	NA	NA	280	291	355	309	237
Potted flowering plants: (000 pots)															
Anthuriums	15	14	17	18	10	82	142	52	90	76	126	190	125	158	102
Chrysanthemums	11	8	10	13	13	214	218	278	240	289	681	743	957	779	835
Poinsettias	26	25	29	38	29	149	150	139	192	204	474	513	453	618	685
Other NSS	76	35	38	41	37	NA	NA	NA	NA	NA	417	496	404	479	607
Ornamentals and trees	39	42	42	40	34	NA	NA	NA	NA	NA	463	773	915	603	628
Other nursery products [7]	77	92	102	74	54	NA	NA	NA	NA	NA	1,622	1,886	2,311	2,164	2,493
TOTAL	[8]650	[8]680	[8]670	[8]675	[8]590						30,600	36,165	38,905	44,162	49,094

NA = Not available.
NSS = Not shown separately.

[1] Prior to 1986, included with "Carnations".
[2] Prior to 1986, included in "All other nursery products".
[3] Prior to 1985, included with other NSS.
[4] Prior to 1986, included with "Roses".
[5] Includes vanda hybrids, phalaenopsis, and cypripediums.
[6] Includes hanging baskets.
[7] Includes bedding plants, plant rentals, and any other flowers or nursery products not elsewhere classified.
[8] Unduplicated count. Number for each individual flower or item is count of those having sales of that item during each year.

FLORICULTURE AND NURSERY PRODUCTS: Hawaii Island, 1982-86

Commodity	Number sold					Value of sales				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
						1,000 dollars				
Selected items:										
Anthuriums (000 dozens)	1,940	1,975	2,250	2,185	**2,250**	5,470	5,766	7,062	7,246	**9,552**
Cymbidiums (000 flowers)	730	570	545	525	**363**	220	168	206	162	**162**
Heliconia (000 dozens)	NA	NA	NA	NA	**23**	NA	NA	NA	NA	**126**
Vanda, Miss Joaquim (Million flowers)	41.3	39.5	24.0	23.0	**25.2**	1,160	1,200	950	985	**877**
Cut foliage	NA	NA	NA	NA	**NA**	320	455	580	533	**391**
Potted orchids (000 pots)	116	154	92	147	**322**	525	688	721	914	**1,179**
Potted foliage	NA	NA	NA	NA	**NA**	3,600	3,380	4,275	5,653	**5,740**
Ornamentals and trees	NA	NA	NA	NA	**NA**	60	30	75	100	**236**
Unfinished stock and cuttings	NA	NA	NA	NA	**NA**	400	315	250	370	**225**
All other flowers and nursery products [1]	NA	NA	NA	NA	**NA**	1,804	2,314	2,825	3,642	**4,287**
Total						13,559	14,316	16,944	19,605	**22,775**

NA = Not available.

[1] Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rental, etc., for the island are included in the "All other" category.

FLORICULTURE AND NURSERY PRODUCTS: Kauai Island, 1982-86

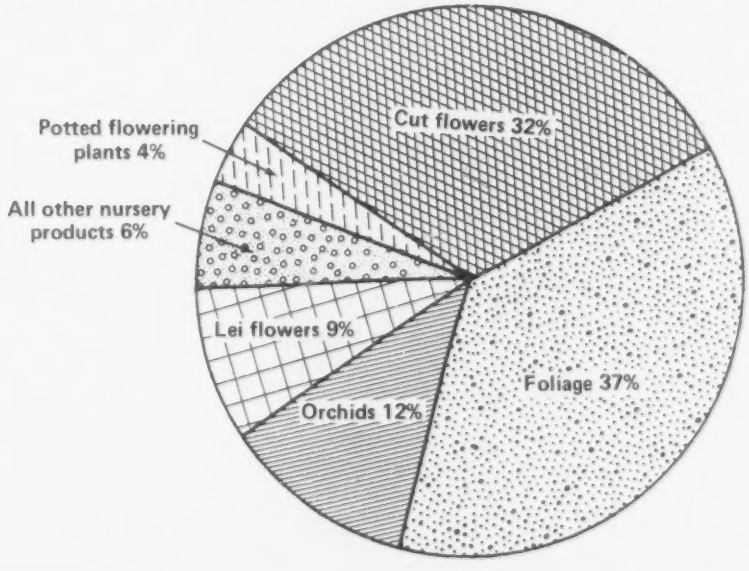
Commodity	Number sold					Value of sales				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
						1,000 dollars				
Selected items:										
Dendrobium, sprays (000 dozens)	NA	NA	11	6	**12**	[2]	[2]	56	53	**60**
Potted orchids	NA	NA	6	5	**20**	[2]	[2]	39	35	**60**
All other flowers and nursery products [1]	NA	NA	NA	NA	**NA**	299	421	693	1,091	**1,014**
Total						299	421	788	1,179	**1,134**

NA = Not available.

[1] Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rental, etc., for the island are included in the "All other" category.

[2] Included in "All other" category.

1986 FLORICULTURE, PERCENT OF TOTAL VALUE



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FLORICULTURE AND NURSERY PRODUCTS: Maui/Molokai Islands, 1982-86

Commodity	Number sold					Value of sales				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
						1,000 dollars				
Selected items:										
Chrysanthemums, pompon (000 bunches)	52	56	42	46	36	58	61	50	80	68
Ginger, other (000 dozens)	NA	NA	NA	NA	41	NA	NA	NA	NA	245
Heliconia (000 dozens)	NA	NA	NA	NA	30	NA	NA	NA	NA	159
Protea (000 stems)	864	960	972	747	932	382	400	437	564	545
Carnation heads (Million flowers)	32.0	34.0	32.0	29.0	21.7	1,153	1,250	1,065	1,060	817
Cut foliage	NA	NA	NA	NA	NA	NA	NA	NA	NA	88
Potted foliage	NA	NA	NA	NA	NA	640	620	650	615	318
All other flowers and nursery products [1]	NA	NA	NA	NA	NA	1,692	2,158	2,344	2,869	2,951
Total						3,925	4,489	4,546	5,188	5,191

NA = Not available.

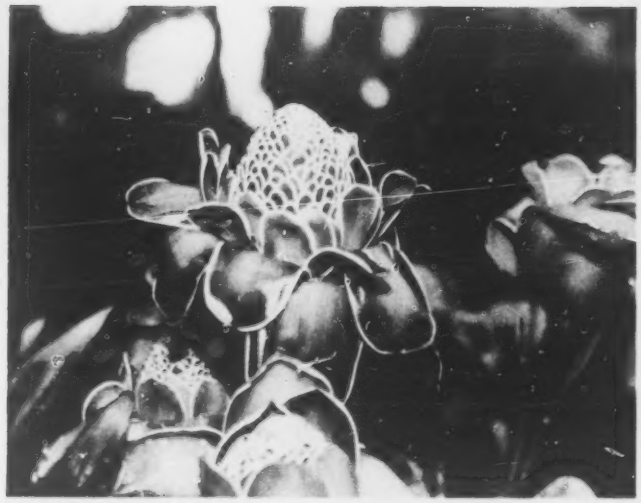
[1] Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rental, etc., for the island are included in the "All other" category.

FLORICULTURE AND NURSERY PRODUCTS: Oahu Island, 1982-86

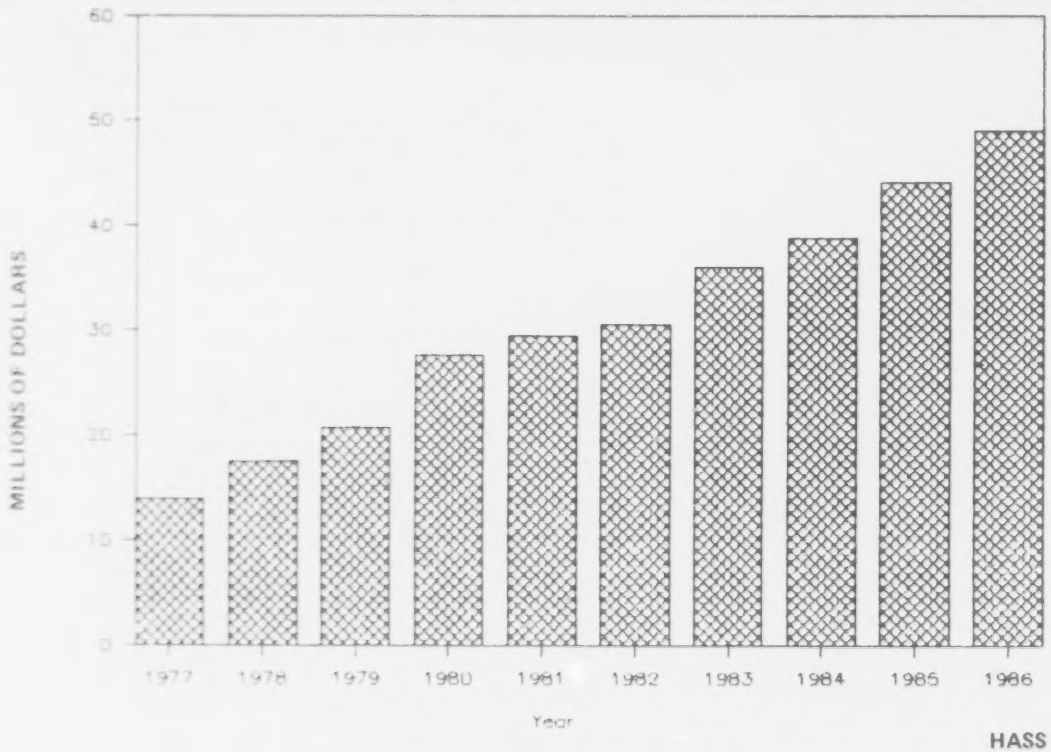
Commodity	Number sold					Value of sales				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
						1,000 dollars				
Selected items:										
Anthuriums, cut (000 dozens)	40	75	80	80	81	154	261	276	280	316
Ginger, red (000 dozens)	46	48	53	50	54	147	145	178	135	221
Gingers, other	NA	NA	NA	NA	5	5	7	6	10	20
Heliconia (000 dozens)	NA	NA	NA	NA	24	NA	NA	NA	NA	105
Chrysanthemums, pompon	303	295	315	287	218	336	400	440	503	283
(000 bunches)	303	295	315	287	218	336	400	440	503	283
Cattleyas (000 flowers)	50	45	41	46	28	44	40	37	56	28
Dendrobium, sprays (000 dozens)	60	90	162	215	196	349	590	1,001	1,115	1,375
Plumeria (Million flowers)	12.2	10.7	9.4	7.7	8.4	159	155	154	148	148
Dendrobiums, for lei (Million flowers)	5.8	6.5	6.5	10.4	11.0	154	196	190	253	305
Pikake (000 strands)	118	120	110	105	112	155	159	160	157	154
Cut foliage	NA	NA	NA	NA	NA	237	195	270	258	242
Potted chrysanthemums (000 pots)	73	73	81	92	92	196	235	265	294	218
Potted orchids (000 pots)	344	368	473	368		1,478	1,711	1,838	2,174	2,214
Potted poinsettias (000 pots)	105	109	95	134	144	316	354	277	434	462
Potted foliage	NA	NA	NA	NA	NA	4,575	6,800	5,100	5,731	6,615
Unfinished stock and cuttings	NA	NA	NA	NA	NA	795	770	1,020	655	905
All other flowers and nursery products [1]	NA	NA	NA	NA	NA	3,717	4,921	5,415	5,987	6,383
Total						12,817	16,939	16,627	18,190	19,994

NA = Not available.

[1] Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rental, etc., for the island are included in the "All other" category.



FLORICULTURE AND NURSERY PRODUCTS: VALUE OF SALES, STATE OF HAWAII, 1977-86



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ANTHURIUMS: Area used for production, by isiands, 1982-86

Year	Hawaii	Kauai	Maui	Oahu	State
	1,000 square feet				
	ARTIFICIAL SHADE STRUCTURE				
1982	15,800	15	3	350	16,168
1983	16,200	22	3	400	16,625
1984	16,000	23	23	400	16,446
1985	15,750	25	6	415	16,196
1986	18,285	27	2	365	18,679
	NATURAL SHADE AREA				
1982	4,356	--	--	44	4,400
1983	4,250	9	4	20	4,283
1984	3,500	17	4	--	3,521
1985	3,400	26	13	--	3,439
1986	2,500	10	4	--	2,514
	TOTAL ARTIFICIAL AND NATURAL SHADE				
1982	20,156	15	3	394	20,568
1983	20,450	31	7	420	20,908
1984	19,500	40	27	400	19,967
1985	19,150	51	19	415	19,635
1986	20,785	37	6	365	21,193

-- = Less than 500 square feet.

FLORICULTURE AND NURSERY PRODUCTS: Area used for production, State of Hawaii, 1986

Commodity	Plants	Production area	
		1986	Intentions for 1987
	Thousand	1,000 square feet	
Cut flowers:			
Anthuriums	NA	21,193	22,190
		Acres	
Birds of Paradise	NA	19	40
		1,000 square feet	
Carnations, standard	202	206	180
Carnations, miniature	215	139	203
Chrysanthemums, standard	97	29	26
Chrysanthemums, pompon	1,835	536	612
		Acres	
Gingers, red	NA	52	56
Gingers, other	NA	14	18
Heliconia	NA	69	85
		1,000 square feet	
Roses, Hybrid Tea	364	825	915
Roses, Sweetheart	64	153	154
		Acres	
Protea	NA	91	113
		1,000 square feet	
Orchids:			
Cattleyas	NA	42	42
Cymbidiums	NA	409	415
Dendrobiums	NA	2,790	3,617
Other potted	NA	571	593
Foliage:			
Potted (indoor use)	NA	5,809	6,402
Potted flowering:			
Chrysanthemums	NA	243	NA
Poinsettias	NA	424	NA

NA = Not available.

ANTHURIUMS: Mainland shipments, percent of flowers sold by size, Island of Hawaii, 1982-86

Year	Miniature	Small	Medium	Large	Extra-large
1982	19	25	31	23	2
1983	19	26	32	20	3
1984	23	25	30	19	3
1985	21	23	31	21	4
1986	21	24	30	20	5

ANTHURIUMS: Foreign shipments, by destination, Island of Hawaii, 1982-86

Destination	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 dozens												
Australia:													
1982	2.0	3.8	4.1	7.1	3.0	3.0	4.2	3.7	3.1	2.0	1.7	2.5	40.2
1983	1.9	3.4	4.1	3.6	1.7	2.7	3.1	2.6	2.6	1.9	2.4	2.6	32.6
1984	1.2	3.2	2.7	3.4	5.3	2.8	3.5	3.5	3.0	2.9	2.8	2.6	36.9
1985	.9	1.5	.6	.7	1.7	.2	.6	.2	.1	--	--	--	6.5
1986 [1]													
Italy:													
1982	33.7	35.2	31.4	48.4	20.4	25.0	33.0	30.0	46.9	62.2	30.8	42.4	439.4
1983	26.4	28.7	30.4	29.7	18.0	33.5	22.4	32.8	39.9	57.9	32.5	32.2	384.4
1984	26.5	28.6	27.2	33.4	27.3	23.0	16.9	34.2	32.3	59.7	25.8	26.0	360.9
1985	15.9	12.3	13.8	10.3	16.1	12.3	11.6	15.9	18.3	42.7	13.6	15.3	198.1
1986	**15.3**	**8.1**	**14.4**	**12.4**	**14.1**	**12.5**	**15.3**	**16.1**	**21.2**	**45.1**	**13.2**	**15.2**	**202.9**
Japan:													
1982	19.6	7.7	17.2	14.5	27.6	35.4	53.7	52.0	44.8	40.5	41.1	30.6	384.7
1983	16.8	3.2	6.8	13.7	22.8	33.4	56.3	55.1	56.0	54.5	48.9	40.1	407.6
1984	13.6	4.5	20.2	25.4	34.6	44.5	43.0	56.8	41.4	40.6	29.8	18.0	372.4
1985	6.1	3.5	8.9	15.1	26.9	35.1	58.3	62.5	47.7	45.8	37.8	29.3	377.0
1986	**10.9**	**6.1**	**12.1**	**23.2**	**44.0**	**47.1**	**70.9**	**81.0**	**56.4**	**48.4**	**43.0**	**32.5**	**475.6**
Switzerland:													
1982	12.1	14.8	12.3	13.3	7.1	5.9	2.6	5.2	9.0	8.5	11.1	15.5	117.4
1983	10.1	12.4	14.2	10.5	7.9	5.6	1.2	4.6	5.9	6.8	9.6	9.3	98.1
1984	7.4	12.8	7.6	8.8	8.3	5.1	.6	3.6	5.7	7.9	6.2	8.1	82.1
1985	5.2	7.0	3.4	1.7	5.2	1.3	.4	.6	3.4	1.3	1.8	3.1	34.4
1986	**.7**	**.9**	**.6**	**3.1**	**1.8**	**1.1**	**.7**	**1.1**	**2.8**	**2.7**	**1.5**	**1.5**	**18.5**
West Germany:													
1982	10.8	9.4	7.6	11.3	5.4	5.1	3.9	2.5	2.3	2.1	1.3	3.1	64.8
1983	1.6	.8	1.3	2.4	1.2	1.3	.8	--	0.0	1.1	1.1	.7	12.3
1984	1.0	--	.2	.7	.4	--	--	--	--	--	--	--	2.3
1985 [1]													
1986 [1]													
All other:													
1982	2.6	4.2	4.1	3.6	2.7	2.6	3.5	3.5	3.3	4.1	5.9	10.1	50.2
1983	9.2	5.0	6.5	4.5	4.6	3.2	3.5	3.0	3.4	6.5	7.2	8.2	64.8
1984	6.2	4.4	4.4	2.4	3.2	2.3	3.3	2.9	3.0	2.5	3.0	2.8	40.4
1985	2.9	4.1	3.0	2.8	3.8	2.8	3.2	3.3	4.5	4.4	4.0	4.2	43.0
1986	**9.2**	**3.8**	**2.8**	**2.3**	**2.4**	**2.2**	**2.3**	**1.9**	**2.5**	**3.1**	**2.2**	**2.8**	**37.5**

-- = Negligible.

[1] Included in "All other" category.

DENDROBIUM ORCHIDS: Sales and value, 1982-86

Year	Individual blossoms		Cut sprays		Potted plants				Total value [1]
					In bud/bloom		Community pots		
	Number sold	Value	Number sold	Value	Number sold	Value	Number sold	Value	
	Million blooms	1,000 dollars	1,000 dozens	1,000 dollars	1,000 pots	1,000 dollars	1,000 pots	1,000 dollars	1,000 dollars
					STATE [2]				
1982 . .	6.5	179	78	440	160	622	26	155	1,396
1983 . .	7.6	234	123	774	201	873	28	159	2,040
1984 . .	10.5	314	208	1,278	185	709	23	145	2,446
1985 . .	18.0	458	291	1,687	146	802	55	259	3,206
1986 . .	**18.0**	**488**	**314**	**2,115**	**235**	**982**	**30**	**187**	**4,051**
					OAHU				
1982 . .	5.8	154	60	349	86	280	25	148	931
1983 . .	6.5	196	90	590	120	465	26	147	1,398
1984 . .	6.5	190	162	1,001	136	476	22	132	1,799
1985 . .	10.4	253	215	1,115	100	492	52	242	2,102
1986 . .	**11.0**	**305**	**196**	**1,375**	**106**	**505**	**29**	**181**	**2,644**

[1] Total value for 1986, includes value of liners not shown separately.
[2] Hawaii, Kauai, and Maui combined in State total to avoid disclosure of individual operations.

DENDROBIUM ORCHIDS: Production area, 1986 with 1987 intentions [1]

Type of shade	Used in 1986			Intentions for 1987			
	Cut sprays, blossoms	Potted plants	Total	Cut sprays, blossoms	Potted plants	Total	Percent of 1986
	1,000 square feet						
			STATE [2]				
Glass or glass substitute	281	107	388				
Saran	2,239	589	2,828				
Natural shade and open field	65	48	113				
Total	2,585	744	3,329	2,900	685	3,585	108
			OAHU				
Glass or glass substitute	46	26	72				
Saran	1,515	392	1,907				
Natural shade and open field	13	48	61				
Total	1,574	466	2,040				

[1] Total area devoted to crop. May include area not yet producing.
[2] Hawaii, Kauai, and Maui combined in State total to avoid disclosure of individual operations.

POINSETTIAS: Number of growers, pots sold by size, and value, 1982-86

Year	Growers	Pots sold by size				Value
		4 inches and under	5-6½ inches	All other sizes [1]	Total	
	Number					Dollars
			STATE			
1982	26	30,000	111,000	8,000	149,000	474,000
1983	25	21,000	120,000	9,000	150,000	513,000
1984	29	26,000	107,000	6,000	139,000	453,000
1985	38	27,000	151,000	14,000	192,000	618,000
1986	**29**	**44,000**	**145,000**	**15,000**	**204,000**	**685,000**
			OAHU			
1982	18	[2]	[2]	[2]	105,000	316,000
1983	17	[2]	[2]	[2]	109,000	354,000
1984	18	[2]	[2]	[2]	95,000	277,000
1985	21	[2]	[2]	[2]	134,000	434,000
1986	**18**	[2]	[2]	[2]	**144,000**	**462,000**

[1] Includes hanging baskets.
[2] Not shown separately to avoid disclosure of individual operations.

POINSETTIAS: Percent of flowers grown by type of growing area, 1982-86

Year	Saran	Glass or glass substitute	Open field
1982	18	53	29
1983	23	44	33
1984	26	40	34
1985	20	39	41
1986	**23**	**39**	**38**

POINSETTIAS: Percent of flowers grown by varieties, 1982-86

Year	C-1	V-10	V-14	Others
1982	32	32	12	24
1983	22	48	12	18
1984	16	54	20	10
1985	15	59	16	10
1986	**19**	**59**	**11**	**11**

POINSETTIAS: 1986 intentions, with comparisons

Year	Grower intentions spring of year	Pots set [1]	Pots sold
	Number		
1982	156,000	170,000	149,000
1983	176,000	205,000	150,000
1984	NA	210,000	139,000
1985	NA	231,000	192,000
1986	**NA**	**213,000**	**204,000**

NA = Not available.
[1] Includes small pots eventually used for hanging baskets and counted as only one pot.

FLORICULTURE AND NURSERY PRODUCTS: Out-of-State sales, State of Hawaii, 1982-86

Commodity	1982	1983	1984	1985	1986
	1,000 dollars [1]				
Anthuriums, cut	6,370	7,005	7,050	7,581	8,653
Red Ginger	91	145	240	270	565
Other Ginger	[2]	[2]	[2]	[2]	265
Protea	475	505	550	560	704
Birds of Paradise	[2]	[2]	[2]	175	415
Heliconia	[2]	[2]	[2]	150	735
Cattleya Orchids	117	120	115	232	456
Cymbidium Orchids	175	125	121	155	108
Dendrobium Orchids, cut sprays	190	439	846	1,031	1,444
Potted orchid plants	968	1,531	1,510	1,930	1,839
Cut foliage	410	460	670	550	858
Potted foliage plants	6,912	9,070	8,650	9,550	9,782
Unfinished potted foliage stock	802	1,360	750	1,160	740
All other flowers and nursery products	1,399	1,240	1,108	940	1,572
TOTAL	17,909	22,000	21,610	24,284	28,136

[1] Based on F.O.B. Island value. Includes both wholesale and retail sales. Does not include sales of cut flowers, leis, etc., purchased within the State and hand carried out.
[2] Not shown separately.

ANTHURIUMS: Mainland and foreign shipments from the Island of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 dozens												
Mainland:													
1982	48.7	60.9	44.5	48.6	50.9	43.0	46.6	57.3	55.2	54.5	54.0	82.8	647.0
1983	59.7	73.9	48.5	54.1	54.3	52.3	52.1	56.0	59.1	58.8	64.1	87.4	720.3
1984	67.0	92.6	61.8	67.6	76.4	74.8	59.2	65.9	60.9	66.4	75.9	97.9	866.4
1985	70.1	93.0	62.9	66.9	81.6	65.7	71.0	80.0	79.0	80.0	84.0	118.0	952.2
1986	**83.0**	**105.0**	**80.0**	**91.0**	**101.0**	**84.0**	**84.0**	**89.0**	**95.0**	**89.0**	**85.5**	**110.0**	**1,096.5**
Foreign:													
1982	80.8	75.1	76.7	98.2	66.2	77.0	100.9	96.9	109.4	119.4	91.9	104.2	1,096.7
1983	66.0	53.5	63.3	64.4	56.2	79.7	87.3	98.1	107.8	128.7	101.7	93.1	999.8
1984	55.9	53.5	62.3	74.1	79.1	77.7	67.3	101.0	85.4	113.6	67.6	57.5	895.0
1985	31.0	28.4	29.7	30.6	53.7	51.7	74.1	82.5	74.0	94.2	57.2	51.9	659.0
1986	**36.1**	**18.9**	**29.9**	**41.0**	**62.3**	**62.9**	**89.2**	**100.1**	**82.9**	**99.3**	**59.9**	**52.0**	**734.5**
Total shipments: [1]													
1982	129.5	136.0	121.2	146.8	117.1	120.0	147.5	154.2	164.6	173.9	145.9	187.0	1,743.7
1983	125.7	127.5	111.8	118.4	110.5	132.0	139.4	154.1	166.9	187.5	165.8	180.5	1,720.1
1984	122.9	146.1	124.1	141.7	155.5	152.5	126.5	166.9	146.3	180.0	143.5	155.4	1,761.4
1985	101.1	121.4	92.6	97.5	135.3	117.4	145.1	162.5	153.0	174.2	141.2	169.9	1,611.2
1986	**119.1**	**123.9**	**109.9**	**132.0**	**163.3**	**146.9**	**173.2**	**189.1**	**177.9**	**188.3**	**145.4**	**162.0**	**1,831.0**

[1] Sum of mainland and foreign may not add to total shipments due to rounding.

DENDROBIUM ORCHIDS: Out-of-State sales, 1982-86

Year	Cut sprays		Potted plants [1]		Total value
	Number	Value	Number	Value	
	Dozens	Dollars	Pots	Dollars	
1982	34,000	189,600	57,100	266,500	456,100
1983	59,000	439,000	80,700	431,000	870,000
1984	120,000	846,000	85,100	459,000	1,305,000
1985	152,000	1,031,000	107,000	645,000	1,676,000
1986	**214,000**	**1,444,000**	**159,000**	**653,000**	**2,097,000**

[1] Includes community pots.

COFFEE: Number of farms, acreage, yield, marketings, price, and value, State of Hawaii, 1982-86 [1]

Year [2]	Farms	Acreage		Marketings - parchment equivalent				Green production
		In crop	Harvested	Yield per harvested acre	Marketings	Farm price	Value of sales	
	Number	Acres		1,000 pounds		Dollars per pound	1,000 dollars	1,000 pounds
1982-83	620	2,000	1,900	0.5	990	2.15	2,129	NA
1983-84	610	2,000	1,800	1.6	2,800	2.25	6,300	NA
1984-85	615	2,000	1,700	1.0	1,750	2.75	[3]4,813	NA
1985-86	620	2,100	1,650	1.1	1,850	2.80	5,180	1,535
1986-87	**620**	**2,300**	**2,000**	**1.5**	**2,900**	**3.00**	**8,700**	**2,180**

[1] State production all on Island of Hawaii.
[2] Harvesting normally begins in September and extends to the early part of the following year.
[3] Revised.

TARO: Number of farms, acreage, marketings, price, and value, by islands, 1982-86

Year	Farms	Acreage in crop [1]			Marketings			Farm price			Value of sales
		Poi taro	Chinese taro	Total	Fresh	Processed	Total	Poi taro	Chinese taro	All	
	Number	Acres			1,000 pounds			Cents per pound			1,000 dollars
STATE											
1982	127	340	10	350	307	6,153	6,460	22.4	NA	22.4	1,447
1983	155	350	20	370	346	5,094	5,440	22.2	35.0	22.6	1,229
1984	137	350	20	370	290	6,020	6,310	21.4	34.2	21.9	1,382
1985	155	340	60	400	590	6,270	6,860	21.6	37.9	23.0	1,578
1986	**140**	**330**	**60**	**390**	**490**	**5,840**	**6,330**	**22.2**	**33.9**	**23.1**	**1,462**
HAWAII											
1982	45	45	10	55	221	659	880	22.4	NA	22.4	197
1983	67	45	20	65	228	512	740	22.5	35.0	25.0	185
1984	57	45	20	65	180	615	795	23.4	34.2	25.8	205
1985	72	35	50	85	390	620	1,010	23.4	37.2	28.7	290
1986	**65**	**35**	**50**	**85**	**400**	**440**	**840**	**22.6**	**34.2**	**28.1**	**236**
KAUAI											
1982	49	210		210	56	4,304	4,360	22.3	NA	22.3	972
1983	54	215	[2]	215	39	3,411	3,450	22.1	[3]	22.1	762
1984	50	225	[2]	225	40	4,310	4,350	21.1	[3]	21.1	918
1985	48	210	[2]	210	60	4,720	4,780	21.4	[3]	21.6	1,032
1986	**50**	**215**	[2]	**220**	**40**	**4,450**	**4,490**	**22.4**	[3]	**22.5**	**1,010**
MAUI/MOLOKAI/OAHU [4]											
1982	33	85	[5]	85	30	1,190	1,220	22.8	NA	22.8	278
1983	34	90	[5]	90	79	1,171	1,250	22.6	[3]	22.6	282
1984	30	80	[5]	80	70	1,095	1,165	21.3	[3]	22.2	259
1985	35	95	10	105	140	930	1,070	21.4	40.5	23.9	256
1986	**25**	**80**	**10**	**85**	**50**	**950**	**1,000**	**21.0**	**32.3**	**21.6**	**216**

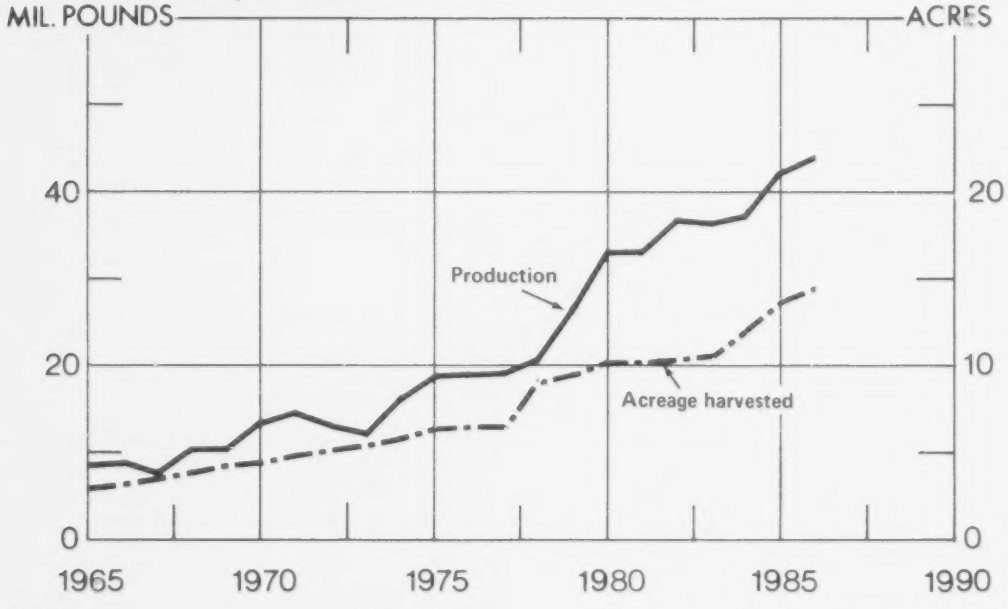
[1] Survey conducted in November each year. Does not include acreage used primarily for leaf production.
[2] Kauai combined with Maui, Molokai, and Oahu to avoid disclosure of individual operations.
[3] Not shown separately but accounted for in State average.
[4] Oahu combined with Maui and Molokai to avoid disclosure of individual operations.
[5] Less than 5 acres.

MACADAMIA NUTS: Number of farms, acreage, yield, production, marketings, price, and value, by islands, 1982-86

Crop year [1]	Farms	Acreage [2]		Yield per acre (bearing)	Total production (in-shell)	Marketings (in-shell) [3]	Average moisture		Farm price [4]	Value of marketings
		In crop	Bearing				Entire crop	Purchases		
	Number	Acres		1,000 pounds			Percent		Cents per pound	1,000 dollars
					STATE [5]					
1982	550	[6] 15,600	10,200	3.6	38,700	36,720	20.5	16.3	73.9	27,136
1983	600	[6] 16,400	10,600	3.4	38,500	36,420	18.3	18.6	65.7	23,928
1984	605	[6] 17,500	12,000	3.1	40,500	37,700	19.2	19.7	69.2	26,088
1985	610	20,900	13,500	3.1	44,700	42,000	19.7	21.5	72.5	30,450
1986	**645**	**21,300**	**14,400**	**3.1**	**46,600**	**44,000**	**20.3**	**20.7**	**80.0**	**35,200**
					HAWAII					
1982	545	[6] 14,240	10,150	3.6	NA	36,600	NA	NA	73.9	27,047
1983	[6] 595	[6] 14,990	10,170	3.6	NA	36,200	NA	NA	65.7	23,783
1984	595	[6] 15,920	11,030	3.4	NA	37,500	NA	NA	69.2	25,950
1985	600	19,130	12,250	3.4	NA	41,400	NA	NA	72.5	30,015
1986	**630**	**19,350**	**13,040**	**3.3**	**NA**	**43,350**	**NA**	**NA**	**80.0**	**34,680**
					KAUAI/MAUI/OAHU [7]					
1982	5	[6] 1,360	50	2.4	NA	120	NA	NA	74.2	89
1983	5	[6] 1,410	430	.5	NA	220	NA	NA	66.1	145
1984	10	[6] 1,580	970	.2	NA	200	NA	NA	69.0	138
1985	10	1,770	1,250	.5	NA	600	NA	NA	69.0	435
1986	**15**	**1,950**	**1,360**	**.5**	**NA**	**650**	**NA**	**NA**	**79.0**	**520**

NA = Not available. [1] Year ends June 30 of following year. [2] At end of year. [3] Includes home use. [4] Farm price represents an average net in-shell price calculated by dividing the quantity of marketings (total production of in-shell nuts delivered to processors less any culls found during processing) into the dollar amount received for those in-shell nuts. [5] Sum of island estimates may not add to State total due to rounding. [6] Revised. [7] Kauai and Oahu combined with Maui to avoid disclosure of individual operations.

MACADAMIA NUTS: Acreage and Production, State of Hawaii, 1965-86



PINEAPPLES: Number of farms, acreage, production, disposition, price, and value, State of Hawaii, 1982-86

Year	Farms	Acreage used for crop	Production (fresh weight)	Disposition		Farm price		Value of production (fresh weight)
				Processed (fresh weight)	Fresh market [1]	Processed [2]	Fresh market [3]	
	Number	1,000 acres	1,000 tons			Dollars per ton		Thousand dollars
1982 . .	18	36.0	670	542	128	82	390	94,364
1983 . .	18	36.0	722	602	120	88	395	100,376
1984 . .	18	35.0	600	481	119	88	400	89,928
1985 . .	18	34.5	565	441	124	90	410	90,530
1986 . .	**19**	**36.0**	**646**	**514**	**132**	**90**	**405**	**99,720**

[1] Beginning 1983 excludes sales of fresh pineapple without tops. Included in processing utilization.
[2] Estimate to reflect value of fresh fruit delivered processing plant door.
[3] Estimate to reflect value at wholesale establishments for local sales and shipper dock for mainland and foreign sales.

PINEAPPLES: Value of processed production, fresh sales and value, State of Hawaii, 1982-86

Year	Fresh market sales			Processor value of canned fruit and juice production [4]	Total value: Fresh market and processed [5]
	Quantity		Value [3]		
	Local [1]	Shipped out-of-State [2]			
	1,000 tons		Thousand dollars	Million dollars	Million dollars
1982 . .	26.5	101.5	49,920	156.1	206.0
1983 . .	17.7	102.3	47,400	171.6	219.0
1984 . .	18.0	101.0	47,600	202.0	249.6
1985 . .	17.5	106.5	50,840	171.7	222.5
1986 . .	**17.3**	**114.7**	**53,460**	**188.5**	**242.0**

[1] Beginning 1983 excludes sales of fresh pineapple without tops.
[2] Market News Service, Hawaii Department of Agriculture. Includes all destinations.
[3] Value FAS shipping point for outshipments, delivered wholesalers local sales.
[4] Value of canned fruit and juices and by-product shipped out-of-State and sold within State.
[5] Pineapple Growers Association of Hawaii.

PINEAPPLES: Outshipments of fresh pineapples, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 pounds												
1982. . .	15,491	15,416	21,352	19,654	18,195	21,275	20,062	16,086	16,087	11,917	12,859	14,687	203,081
1983. . .	15,701	13,419	17,251	16,911	19,142	19,506	19,876	19,685	15,415	16,712	16,619	14,300	204,537
1984. . .	16,572	18,450	20,535	18,272	20,267	20,301	17,472	15,885	12,423	15,175	14,030	12,562	201,944
1985. . .	16,975	15,160	21,017	19,298	18,708	20,534	19,354	19,114	12,155	20,715	14,729	14,968	212,727
1986. . .	**16,882**	**18,091**	**19,400**	**22,639**	**24,632**	**18,348**	**20,922**	**17,947**	**17,213**	**19,656**	**17,384**	**16,231**	**229,345**

Source of outshipment data: Market News Service, Hawaii Department of Agriculture.

GUAVAS: Total processed, farm production, number of farms, acreage, price, and value, State of Hawaii, 1982-86

Year	Total delivered to processors [1]			Farm production					
	Quantity processed	Average price	Value of sales	Farms	Acreage in crop	Acreage harvested	Production	Farm price	Value of sales
	1,000 pounds	Cents per pound	1,000 dollars	Number	Acres		1,000 pounds	Cents per pound	1,000 dollars
					STATE				
1982	7,140	9.7	693	91	885	585	6,730	9.7	653
1983	8,850	8.9	788	117	965	730	7,700	8.8	678
1984	7,000	9.8	686	107	875	610	6,740	9.8	661
1985	9,530	10.2	972	100	920	680	8,890	10.2	907
1986	17,130	10.5	1,799	100	[2]940	690	16,560	10.5	1,739
					HAWAII				
1982	2,130	9.5	202	81	410	225	2,110	9.5	200
1983	3,270	8.4	275	103	460	280	3,250	8.4	273
1984	3,630	9.8	356	95	370	250	3,610	9.8	354
1985	3,170	10.0	317	91	330	200	3,050	10.0	305
1986	5,210	10.5	547	90	[2]340	210	5,130	10.5	539
					KAUAI/MAUI/MOLOKAI/OAHU [3]				
1982	5,010	9.8	491	10	475	360	4,620	9.8	453
1983	5,580	9.2	513	14	505	450	4,450	9.1	405
1984	3,370	9.8	330	12	505	360	3,130	9.8	307
1985	6,360	10.3	655	9	590	480	5,840	10.3	602
1986	11,920	10.5	1,252	10	[2]600	480	11,430	10.5	1,200

[1] Fruit allocated to island of production not island where processed. Includes wild and cultivated production.
[2] Includes planting intentions.
[3] Kauai/Maui/Molokai/Oahu combined to avoid disclosure of individual operations.

GUAVAS: Quantity, price, and value, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual total [1]	Average price [2]	Value
	1,000 pounds													Cents per lb.	1,000 dollars
1982	490	1,010	160	465	210	385	575	990	1,175	860	485	335	7,140	9.7	693
1983	260	180	135	170	105	70	825	1,135	1,450	2,270	1,530	720	8,850	8.9	788
1984	325	355	345	365	530	570	780	1,165	775	645	595	550	7,000	9.8	686
1985	345	235	155	320	490	425	480	1,040	1,840	1,255	1,840	1,105	9,530	10.2	972
1986	1,345	945	450	360	690	525	570	1,865	4,855	3,695	1,070	760	17,130	10.5	1,799

[1] Sum of monthly estimates may not add to annual total due to rounding.
[2] Equivalent F.O.B. plant, island of production. Prices for guavas are averages for wild and cultivated fruit.

GUAVAS: U. S. imports by product type, 1982-86

Product form	1982	1983	1984	1985	1986
	1,000 pounds				
Paste and pulp	8,314	7,330	7,974	8,452	13,876
Prepared, preserved, not specifically provided for	1,477	1,371	1,329	1,138	1,612
Jam and jelly	1,093	789	891	1,373	767
Freeze-dried, pickled, brine	141	35	55	11	11
Total	11,025	9,525	10,249	10,974	16,266

Source: Economic Research Service, U. S. Department of Agriculture.

AVOCADOS: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Farms	Acreage [1]		Yield per acre (bearing)	Production	Farm price	Value of sales
		In crop	Bearing				
	Number	Acres		1,000 pounds		Cents per pound	1,000 dollars
1982 . .	160	440	240	6.7	1,600	22.5	360
1983 . .	160	450	250	4.7	1,170	26.1	305
1984 . .	165	505	270	4.3	1,150	25.9	298
1985 . .	160	525	320	3.8	1,220	24.5	299
1986 . .	**160**	**540**	**330**	**3.9**	**1,300**	**25.6**	**333**

[1] At end of year.

ORANGES: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Farms	Acreage bearing [1]	Yield per acre	Production	Farm price	Value of sales
	Number	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982 . .	23	120	2.9	350	25.0	88
1983 . .	15	105	5.6	590	20.8	123
1984 . .	15	110	5.8	640	26.6	170
1985 . .	11	100	3.4	340	25.5	87
1986 . .	**12**	**100**	**4.5**	**450**	**25.4**	**114**

[1] At end of year.

PASSION FRUIT: Number of farms, acreage, quantity processed, price, and value, State of Hawaii, 1982-86

Year	Farms	Cultivated acreage [1]		Quantity processed [2]	Average price	Value of sales [2]
		In crop	Bearing			
	Number	Acres		1,000 pounds	Cents per pound	1,000 dollars
1982 . .	9	70	60	2,750	12.1	333
1983 . .	17	80	35	1,780	10.1	180
1984 . .	21	100	40	785	12.1	95
1985 . .	19	60	25	820	12.3	101
1986 . .	**11**	**45**	**35**	**550**	**12.3**	**68**

[1] At end of year.
[2] Includes wild and cultivated production.

TANGERINES: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Farms	Acreage bearing [1]	Yield per acre	Production	Farm price	Value of sales
	Number	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982 . .	20	25	4.4	110	26.0	29
1983 . .	12	20	3.5	70	29.3	21
1984 . .	13	22	4.5	100	26.2	26
1985 . .	9	15	3.3	50	35.1	18
1986 . .	**13**	**15**	**5.0**	**75**	**36.3**	**27**

[1] At end of year.

PAPAYAS: Number of farms, acreage, yield, utilization, price, and value, by islands, 1982-86 [1]

Year	Farms [2]	Acreage harvested [2]	Yield per acre [3]	Utilized production	Utilization		Price per pound			Value of utilized production
					Fresh	Processed	Fresh	Processed [4]	All	
	Number	Acres	1,000 pounds				Cents			1,000 dollars
					STATE					
1982 . .	214	2,170	24.3	52,750	44,770	7,980	25.1	3.1	21.8	11,484
1983 . .	227	2,120	29.0	61,400	46,300	15,100	23.6	4.4	18.9	11,591
1984 . .	306	2,590	31.1	80,500	67,000	13,500	13.1	3.1	11.4	9,196
1985 . .	315	2,650	22.8	60,400	49,250	11,150	16.9	2.3	14.2	8,579
1986 . .	**311**	**2,355**	**25.9**	**61,000**	**50,100**	**10,900**	**21.7**	**2.3**	**18.2**	**11,123**
					HAWAII					
1982 . .	123	1,950	24.6	47,900	39,940	7,960	24.8		21.2	10,152
1983 . .	140	2,005	29.4	59,040	44,050	14,990	23.3		18.5	10,912
1984 . .	219	2,165	30.6	66,140	52,680	13,460	13.2		11.4	7,531
1985 . .	238	2,350	23.6	55,375	44,285	11,090	16.4		13.6	7,506
1986 . .	**241**	**2,178**	**26.3**	**57,270**	**46,510**	**10,760**	**21.6**		**18.0**	**10,274**
					KAUAI					
1982 . .	42	130	24.8	3,220	3,200	20	[5]23.8		[5]23.7	[5]889
1983 . .	41	25	31.8	795	780	15	[5]25.3		[5]25.1	[5]350
1984 . .	42	320	36.1	11,554	11,554	0	[5]10.3		[5]10.3	[5]1,236
1985 . .	36	215	15.7	3,365	3,365	0	[5]19.3		[5]19.3	[5]662
1986 . .	**30**	**112**	**20.0**	**2,240**	**2,240**	**0**	[5]22.5		[5]22.5	[5]530
					MAUI/MOLOKAI					
1982 . .	4	20	26.5	530	530	0	[5]		[5]	[5]
1983 . .	5	25	24.0	600	600	0	[5]		[5]	[5]
1984 . .	5	20	21.1	420	420	0	[5]		[5]	[5]
1985 . .	4	5	13.0	65	65	0	[5]		[5]	[5]
1986 . .	**6**	**8**	**14.4**	**115**	**115**	**0**	[5]		[5]	[5]
					OAHU					
1982 . .	45	70	15.7	1,100	1,100	0	39.7		39.7	437
1983 . .	41	70	13.8	965	870	95	37.0		34.1	329
1984 . .	40	85	28.0	2,386	2,346	40	18.2		18.0	429
1985 . .	37	80	19.9	1,595	1,535	60	26.7		25.8	411
1986 . .	**34**	**57**	**24.1**	**1,375**	**1,235**	**140**	**25.6**		**23.2**	**319**

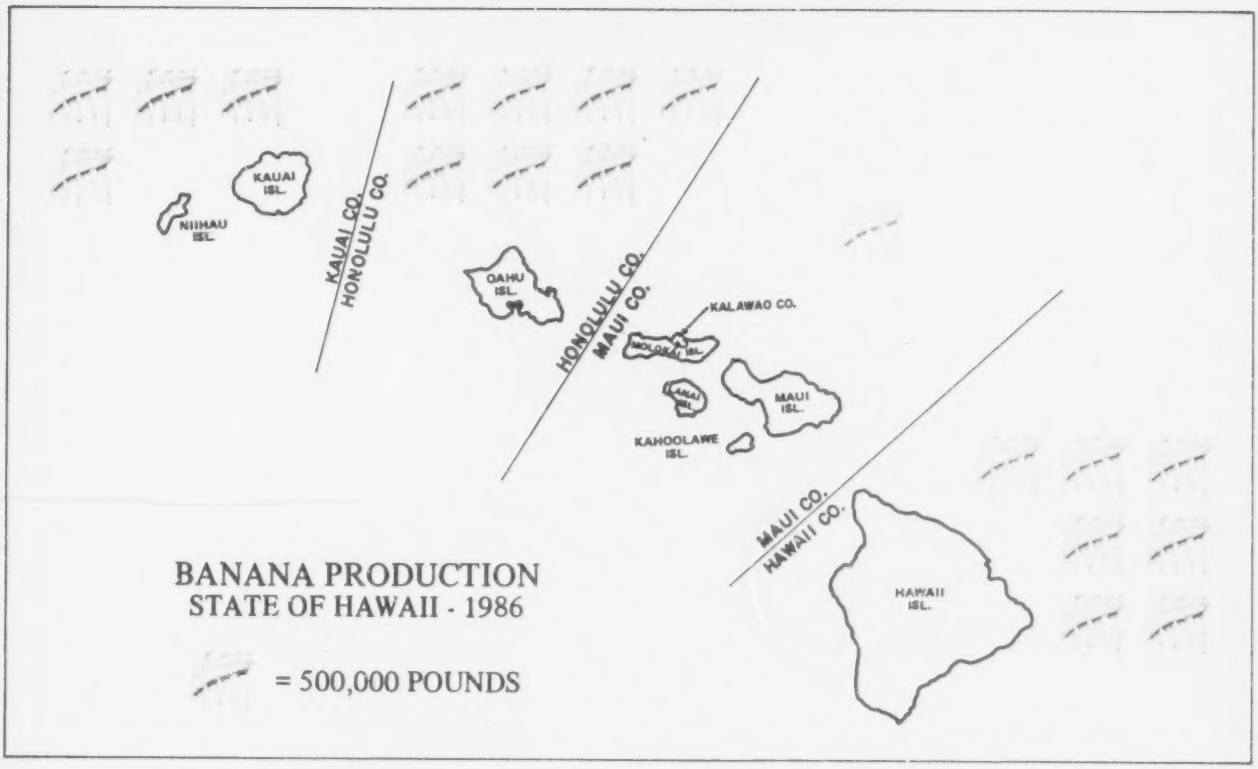
[1] Sum of island estimates may not add to State total due to rounding.
[2] Average of monthly estimates.
[3] Utilized production divided by acreage harvested.
[4] Island data not shown separately to avoid disclosure of individual operations.
[5] Maui/Molokai combined with Kauai to avoid disclosure of individual operations.

PAPAYAS: Acreage, utilization, price, and outshipments, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
						Area harvested -- Acres [1]							
1982 . .	2,255	2,280	2,285	2,170	2,160	2,125	2,070	2,130	2,115	2,130	2,140	2,190	2,170
1983 . .	2,025	2,050	2,035	2,095	2,090	2,070	2,095	2,095	2,095	2,220	2,195	2,375	2,120
1984 . .	2,330	2,370	2,430	2,455	2,570	2,630	2,710	2,800	2,690	2,635	2,725	2,765	2,590
1985 . .	2,810	2,920	2,890	2,820	2,820	2,695	2,725	2,625	2,345	2,410	2,385	2,395	2,650
1986 . .	**2,430**	**2,485**	**2,405**	**2,390**	**2,380**	**2,365**	**2,310**	**2,250**	**2,340**	**2,375**	**2,265**	**2,270**	**2,355**
						Utilization (fresh and processed) -- 1,000 pounds							
1982 . .	4,151	4,369	4,852	4,397	4,114	4,346	4,320	4,049	4,005	4,615	4,499	5,033	52,750
1983 . .	4,701	3,341	2,607	2,991	6,019	5,820	6,616	5,310	2,732	4,987	8,556	7,720	61,400
1984 . .	6,505	6,127	7,501	8,959	8,028	6,022	6,931	8,443	5,011	5,751	6,833	4,389	80,500
1985 . .	4,704	5,544	5,642	4,531	4,389	4,249	6,944	5,446	4,561	5,634	4,838	3,918	60,400
1986 . .	**4,565**	**4,890**	**5,545**	**5,605**	**5,845**	**4,875**	**5,480**	**4,055**	**3,655**	**6,480**	**4,885**	**5,120**	**61,000**
						Total fresh papaya utilization – 1,000 pounds							
1982 . .	3,379	3,716	4,515	3,993	3,534	3,650	3,699	3,284	3,406	3,877	3,654	4,063	44,770
1983 . .	3,565	2,806	2,226	2,533	4,744	4,702	4,518	3,447	2,070	3,897	6,124	5,668	46,300
1984 . .	5,100	5,039	6,049	6,790	5,977	5,094	5,472	7,478	4,788	5,458	5,999	3,756	67,000
1985 . .	4,267	4,400	4,791	4,079	3,914	3,619	5,134	3,989	3,722	4,594	3,383	3,358	49,250
1986 . .	**3,925**	**3,970**	**4,215**	**4,295**	**4,910**	**3,700**	**4,140**	**3,425**	**3,120**	**5,805**	**4,155**	**4,440**	**50,100**
						Intrastate fresh papaya utilization -- 1,000 pounds							
1982 . .	825	1,161	1,105	840	811	830	914	928	881	1,021	984	1,160	11,460
1983 . .	995	793	565	650	840	875	863	847	473	964	1,463	1,332	10,660
1984 . .	1,156	1,253	1,598	1,248	1,310	1,381	1,064	1,361	743	786	1,500	790	14,190
1985 . .	1,697	1,676	1,427	1,225	1,320	1,123	1,352	1,049	1,125	1,585	1,371	1,250	16,200
1986 . .	**1,490**	**1,530**	**1,531**	**1,436**	**1,495**	**1,047**	**1,378**	**1,075**	**1,034**	**1,513**	**1,111**	**1,435**	**16,075**
						Outshipments of fresh papayas – 1,000 pounds							
1982 . .	2,554	2,555	3,410	3,153	2,723	2,820	2,785	2,356	2,525	2,856	2,670	2,903	33,310
1983 . .	2,570	2,013	1,661	1,883	3,904	3,827	3,655	2,600	1,597	2,933	4,661	4,336	35,640
1984 . .	3,944	3,786	4,451	5,542	4,667	3,713	4,408	6,117	4,045	4,672	4,499	2,966	52,810
1985 . .	2,570	2,724	3,364	2,854	2,594	2,496	3,782	2,940	2,597	3,009	2,012	2,108	33,050
1986 . .	**2,435**	**2,440**	**2,684**	**2,859**	**3,415**	**2,653**	**2,762**	**2,350**	**2,086**	**4,292**	**3,044**	**3,005**	**34,025**
						Farm price for fresh market sales (to all markets) -- Cents per pound							
1982 . .	20.4	24.7	22.3	23.9	29.8	37.5	32.2	25.3	25.7	20.4	21.9	19.0	25.1
1983 . .	20.7	31.1	41.0	54.9	38.7	17.2	20.7	15.7	31.0	27.3	11.5	8.2	23.6
1984 . .	12.0	16.4	15.3	11.7	15.7	12.7	12.7	9.6	11.8	13.5	12.8	12.9	13.1
1985 [2] .	16.2	17.1	18.0	19.7	21.0	21.1	17.0	14.0	14.4	14.7	14.8	15.1	16.9
1986 . .	**22.1**	**23.1**	**23.9**	**23.5**	**27.4**	**21.2**	**20.9**	**22.1**	**25.6**	**18.7**	**14.5**	**19.2**	**21.7**

[1] Total is average of monthly data.
[2] Revised.

HAWAII BANANAS

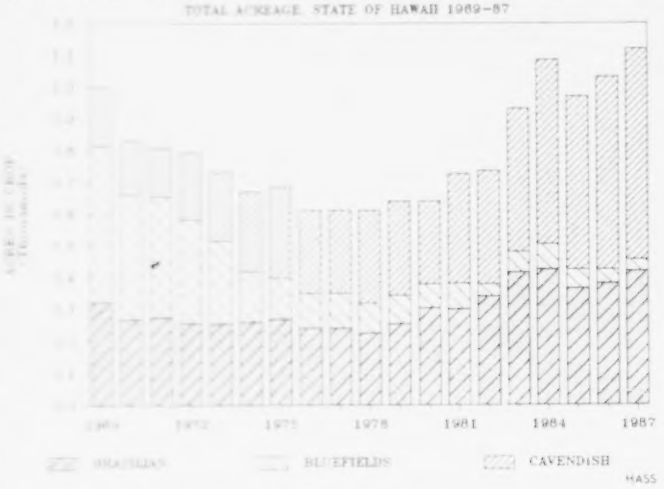


RENEWED GROWTH IN A ONCE GIANT INDUSTRY

Bananas were probably introduced to Hawaii by the first polynesian settlers, for when Captain Cook visited the islands in 1778 the fruit was already a staple part of the islander's diet. Under Hawaii's ideal soil and climatic conditions, cultivation became so extensive that for most of the first half of this century Hawaii was exporting large quantities of bananas. Exports reached a peak in 1915 with an estimated 15.4 million pounds leaving the islands for the U.S. mainland. But, by the mid-1940s Hawaii had lost the mainland banana market to Central and South American countries. It was during this period that the Hawaii Agricultural Statistics Service began compiling data on the banana industry. The statistics gathered during the past 40 years chronical an industry that was on a decline, devastated by disease, foreign competition, and the encroachment of land developers, to one now revitalized by increased demand, a shift in varieties, and new areas of production. Today's banana farmers still face many obstacles, but recent statistics indicate that the industry has begun to reverse the previous downward trend. Some of the more interesting features of the local banana industry are presented in the succeeding pages to provide a general insight into this nation's only commercial banana producing state - Hawaii!

ACREAGE SHIFTING TOWARD CAVENDISH TYPES

TOTAL ACREAGE, STATE OF HAWAII 1969-87



SELF-SUFFICIENCY IN PRODUCTION LOST 20 YEARS AGO

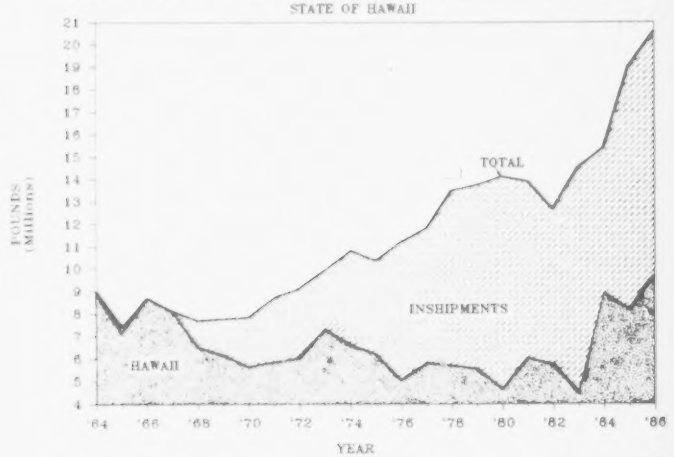
In 1986, Hawaii banana growers harvested 9.7 million pounds. Imports, however, were at a record high 10.9 million pounds and accounted for 53 percent of the State's total supply. Hawaii had sporadically imported bananas in the 1950s, but it was not until the mid-1960s that imports began to supplement local production on a regular yearly basis. These foreign bananas made quick inroads into the local market, achieving a 50 percent share in 14 years and peaking at 69 percent during 1983, a year when local production was severely depressed from damage inflicted by Hurricane Iwa. Hawaii farmers, however, are currently making a major effort to win back the local market. New plantings last year, combined with intentions this year, may increase harvestable area by 410 acres at the end of next year. Assuming a reasonable yield of 25,000 pounds per acre, this new acreage could potentially produce an additional 10 million pounds. Such an increase in local production would greatly reduce Hawaii's current reliance on imported bananas. Many other problems need to be solved before self-sufficiency is once again achieved and perhaps chief among these will be the ability of marketers to convince local consumers to buy "Hawaii-grown" bananas.

BANANA ACREAGE ON THE COMEBACK

Not since 1967 has total banana acreage been at a level as high as the 1,140 acres in crop during 1986. Two developments have characterized the revitalization of the industry that was showing a decline in acreage throughout most of the 1970s. First was a major shift in varieties from Bluefields to Cavendish. In 1969, Bluefields accounted for 49 percent of all banana acreage, but Panama wilt disease quickly reduced that population until today it accounts for only 3 percent. At the same time, Cavendish plantings rose from 19 percent of the total acreage to 59 percent last year. Along with this varietal change was the emergence of Hawaii island as a major production area. In 1946, Oahu dominated the industry with 87 percent of the total banana acreage but by 1986 its share was reduced to 42 percent. Increased Cavendish plantings on Hawaii island, on the other hand, boosted its share of the total acreage from 6 percent in 1946 to 39 percent in 1986. So while banana acreage is back to levels of 20 years ago, the makeup of the industry has changed markedly. Furthermore, the upward trend in acreage is expected to carry through 1987. Based on farmer's planting intentions, total area in crop could increase to 1,425 acres by the end of this year.

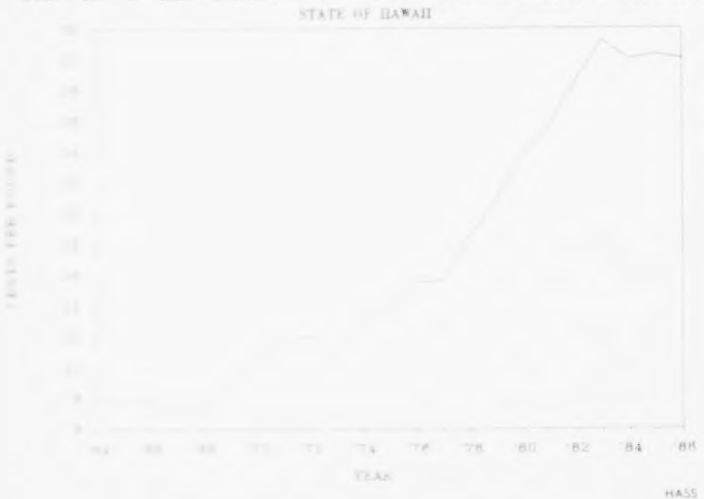
HALF OF ALL BANANAS ARE IMPORTED

STATE OF HAWAII



RECENT LEVELING IN BANANA FARM PRICES

STATE OF HAWAII



FARM PRICE STABILIZES AT 30 CENTS PER POUND MARK

Farm prices averaged 30.0 cents per pound during 1986, down 1 percent from 1985 and unchanged from the year before. Ever since farm returns hit a record 31.2 cents per pound in 1983, prices have remained fairly stable at around the 30.0-cent-per-pound level. This constrasts with a period of almost yearly increases in farm prices between 1968 and 1983. Over that 15 year period, farm prices experienced a four-fold increase going from an average of 7.7 cents per pound to 31.2 cents per pound. Farm prices reached its highest level in 1983 largely due to local production hitting a record low 4.5 million pounds that year. Extensive damage to banana orchards on Kauai and Oahu, caused by the passage of Hurricane Iwa the previous November, severely limited production for most of 1983.

BANANAS: Number of farms, acreage, yield, production, price, and value, by islands, 1982-86

Year	Farms	Acreage		Yield per acre (harvested)	Production	Farm price	Value of sales
		In crop [1]	Harvested				
	Number	Acres		1,000 pounds		Cents per pound	1,000 dollars
				STATE [2]			
1982 . .	179	940	720	8.0	5,750	28.6	1,645
1983 . .	183	1,100	860	5.2	4,470	31.2	1,395
1984 . .	180	990	870	10.2	8,900	30.0	2,670
1985 . .	178	1,060	840	9.7	8,160	30.3	2,472
1986 . .	**185**	**1,140**	**980**	**9.9**	**9,700**	**30.0**	**2,910**
				HAWAII			
1982 . .	29	200	130	19.3	2,510	23.1	580
1983 . .	31	365	205	12.6	2,580	26.4	681
1984 . .	32	330	305	10.3	3,140	28.3	889
1985 . .	35	385	260	12.5	3,240	27.5	891
1986 . .	**41**	**440**	**370**	**9.5**	**3,500**	**28.0**	**980**
				KAUAI			
1982 . .	32	110	50	19.1	954	29.1	278
1983 . .	33	115	95	4.9	470	31.0	146
1984 . .	35	135	110	18.9	2,080	23.6	491
1985 . .	34	155	145	13.7	1,990	26.5	527
1986 . .	**40**	**155**	**135**	**15.3**	**2,070**	**25.9**	**536**
				MAUI/MOLOKAI			
1982 . .	18	90	70	3.4	241	26.8	65
1983 . .	21	80	65	4.6	300	25.8	77
1984 . .	20	75	65	8.2	530	27.7	147
1985 . .	19	65	45	7.2	325	29.2	95
1986 . .	**16**	**70**	**50**	**10.0**	**500**	**30.6**	**153**
				OAHU			
1982 . .	100	540	470	4.4	2,045	35.3	722
1983 . .	98	540	495	2.3	1,120	43.8	491
1984 . .	93	450	390	8.1	3,150	36.3	1,143
1985 . .	90	455	390	6.7	2,605	36.8	959
1986 . .	**88**	**475**	**425**	**8.5**	**3,630**	**34.2**	**1,241**

[1] As of February following year, i.e. acreage data shown for 1985 is as of February 1, 1986.
[2] Island totals may not add to State totals due to rounding.

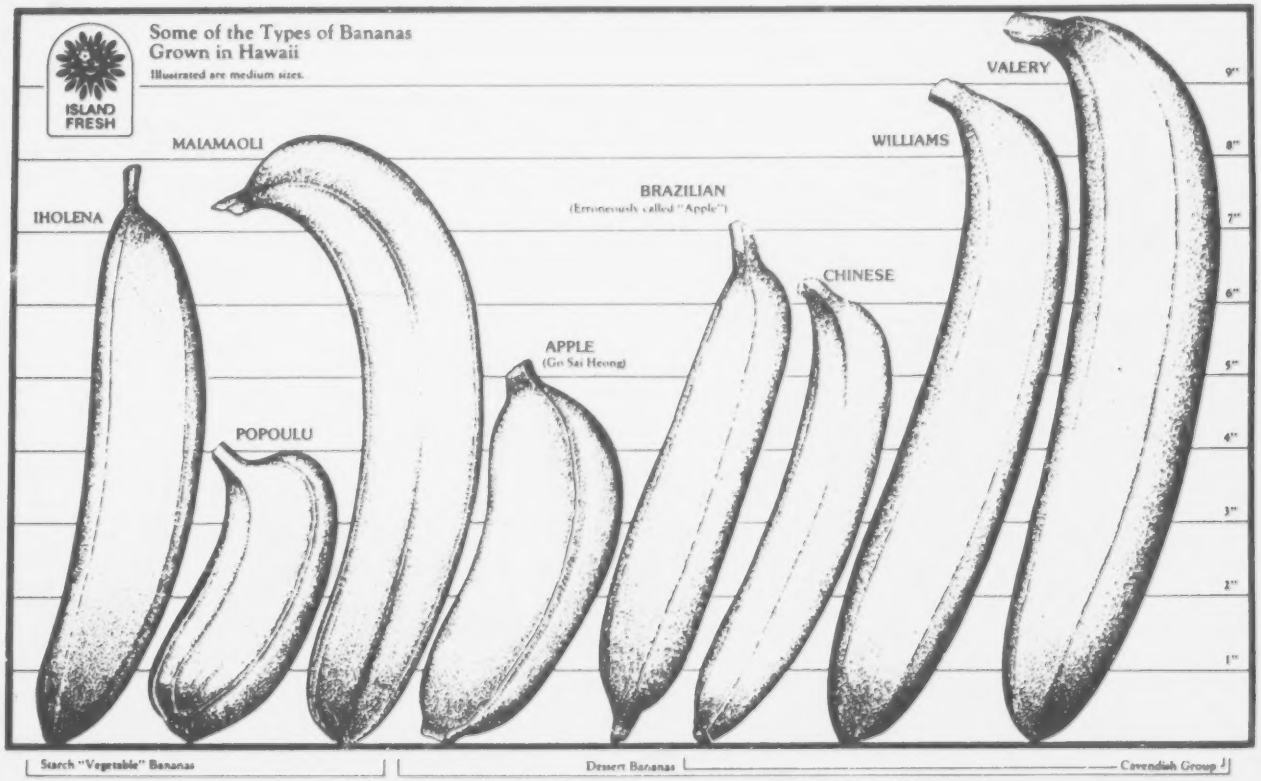
BANANAS: Acreage by variety, State of Hawaii, February 1, 1987

Island	Variety					
	Brazilian [1] (Apple)	Bluefields [2] (Gros Michel)	Cavendish			Others [4]
			Chinese	Williams Hybrid	Robusta [3]	
Hawaii. . . .	25	15	*	320	75	5
Kauai.	35	15	*	105	0	0
Maui/ Molokai. .	20	5	*	20	25	*
Oahu	340	*	20	95	5	15
Total . . .	420	35	20	540	105	20

* = Less than 5 acres. [1] Includes Dwarf "Apple". [2] Includes "Cocos" or Dwarf Bluefields. [3] Includes Taiwan. [4] Includes cooking and Lady Finger.

BANANAS: Monthly production, total acreage in crop, and total acreage harvested, by varieties, and price, State of Hawaii, 1982-86

Year	Production													Acreage	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average	In crop	Harvested
	1,000 pounds													Acres	
BRAZILIAN (APPLE)															
1982. . .	104	115	107	93	91	80	95	131	159	131	172	101	1,379	415	345
1983. . .	44	30	25	24	21	23	29	43	49	62	80	110	540	425	380
1984. . .	139	183	276	266	204	177	186	170	172	209	139	89	2,210	365	305
1985. . .	122	73	97	86	80	81	135	249	257	248	228	214	1,870	380	320
1986. . .	**166**	**150**	**135**	**143**	**158**	**139**	**151**	**186**	**204**	**193**	**194**	**211**	**2,030**	**420**	**365**
BLUEFIELDS (GROS MICHEL)															
1982. . .	34	32	29	30	29	36	36	43	64	60	54	37	484	65	55
1983. . .	30	25	26	27	24	27	27	24	26	29	35	40	340	80	60
1984. . .	38	43	40	29	41	37	55	44	41	45	44	33	490	60	55
1985. . .	32	28	18	20	17	21	29	25	28	25	22	25	290	45	40
1986. . .	**24**	**19**	**20**	**15**	**17**	**16**	**24**	**30**	**23**	**18**	**20**	**14**	**240**	**35**	**30**
CAVENDISH (CHINESE, ROBUSTA, AND WILLIAMS HYBRID)															
1982. . .	303	293	274	251	274	289	319	348	402	423	386	325	3,887	450	315
1983. . .	323	324	299	204	147	172	232	317	272	318	452	530	3,590	585	415
1984. . .	456	456	536	381	514	474	485	499	514	695	638	552	6,200	545	495
1985. . .	453	392	346	345	332	471	611	614	591	641	609	595	6,000	605	465
1986. . .	**556**	**497**	**507**	**437**	**510**	**529**	**624**	**586**	**642**	**857**	**870**	**815**	**7,430**	**665**	**565**
FARM PRICE FOR FRESH MARKET															
	Cents per pound														
1982. . .	25.2	26.5	27.0	27.0	26.2	26.2	28.1	30.5	30.3	30.0	31.6	30.5	28.6		
1983. . .	29.8	28.4	27.7	28.7	28.6	29.8	31.9	33.8	33.5	32.9	32.3	32.7	31.2		
1984. . .	31.5	31.3	30.7	30.0	29.3	29.5	29.3	29.3	29.7	30.3	29.0	29.9	30.0		
1985. . .	30.4	30.0	30.7	31.0	30.9	30.4	30.0	32.0	31.5	29.3	29.0	29.1	30.3		
1986. . .	**29.1**	**29.1**	**29.2**	**30.7**	**30.6**	**30.5**	**29.9**	**30.5**	**30.6**	**29.7**	**29.8**	**30.3**	**30.0**		

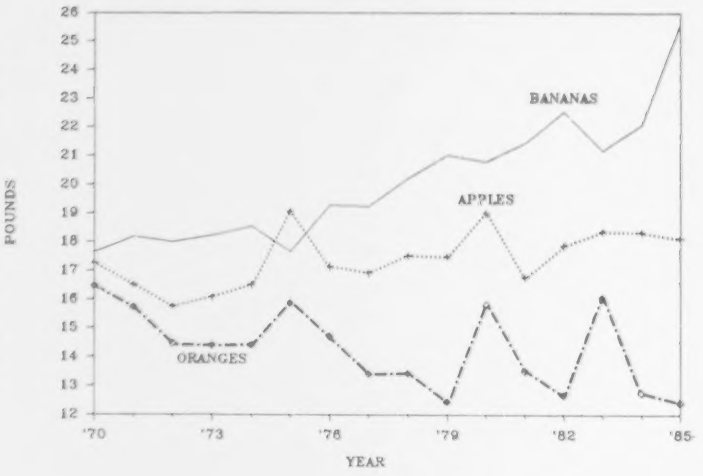


BANANA IMPORTS SATISFYING GROWTH IN U.S. DEMAND

AMERICANS CONSUME MORE BANANAS THAN ANY OTHER FRUIT...

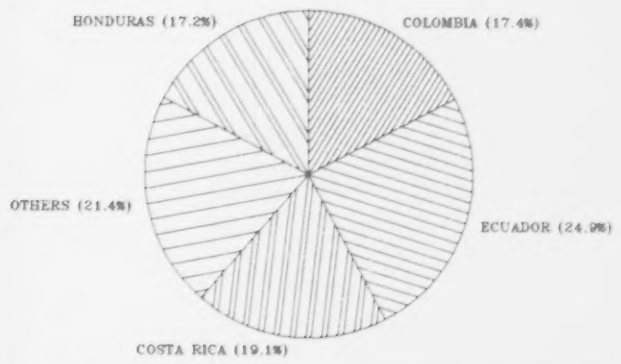
Apples, bananas, and oranges are America's most popular fresh fruits. In 1985, these three fruits accounted for 61 percent of all fresh fruits consumed in the United States. However, changing tastes and preferences over the past 16 years have altered the per capita consumption of these fruits. The popularity of fresh oranges has slipped 25 percent since 1970 while apples have shown only a modest gain of 5 percent. Per capita consumption of bananas, on the other hand, has increased 45 percent since 1970 to an estimated 25.59 pounds per person during 1985, highest among all fresh fruits. Aside from bananas, three other Hawaii-grown fruits have also shown relatively large per capita consumption increases since 1970. These locally important crops are avocados (+76 percent), pineapples (+110 percent), and papayas (+58 percent).

U.S. PER CAPITA CONSUMPTION OF BANANAS



U.S. IMPORTS BY COUNTRY OF ORIGIN

1986

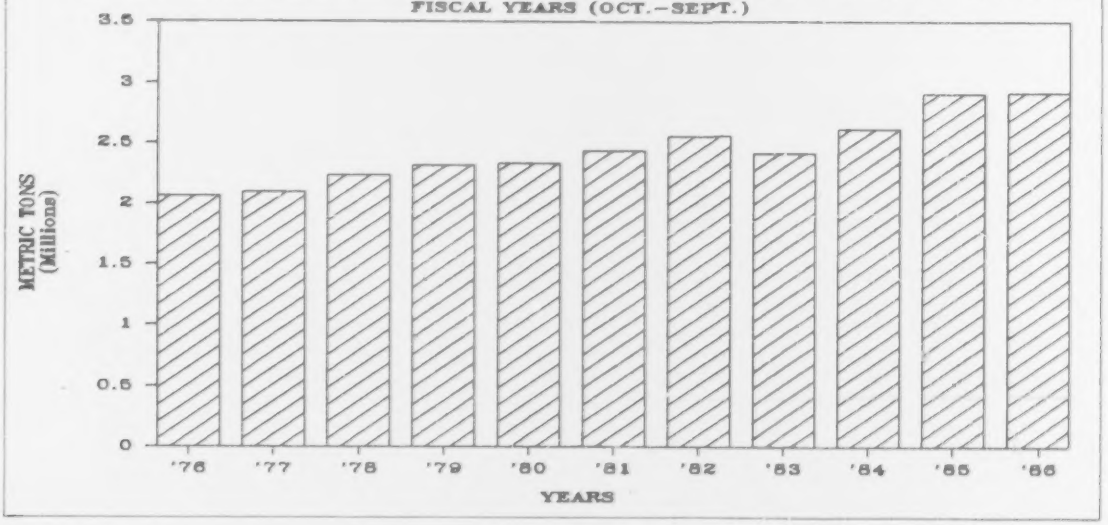


...AND IMPORTS ARE KEEPING UP WITH THE INCREASED DEMAND

America's increased appetite for fresh bananas has been met by a steady increase in imports from foreign countries. Over the 11 year period depicted below, imports grew 41 percent. In fact, the volume of bananas and plantains brought into the U.S. during 1986 topped all other agricultural items including sugar and coffee. Six Central or South American countries dominated the import market. Ecuador led all countries during 1986 by accounting for almost 25 percent of U.S. imports. Colombia, Honduras, and Costa Rica each had 17-19 percent shares while Guatemala and Panama each had 10 percent.

U.S. BANANA IMPORTS AT ALL-TIME HIGH

FISCAL YEARS (OCT.-SEPT.)

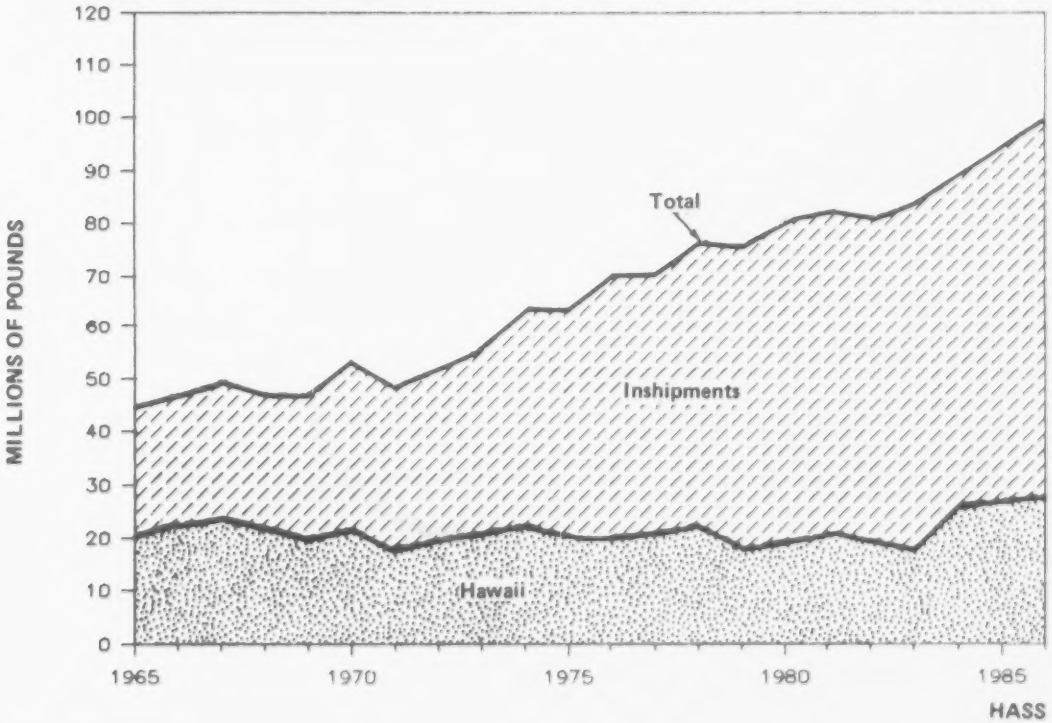


MARKET SUPPLY: Fresh market fruits, State of Hawaii, 1982-86 [1]

Commodity		1982	1983	1984	1985	1986	Hawaii market share 1986
		1,000 pounds					Percent
Apples:	Inshipments	11,977	13,123	12,997	12,463	13,282	
Avocados:	Inshipments	439	634	820	726	576	
	Hawaii	1,600	1,170	1,150	1,220	1,300	69
Bananas:	Inshipments	6,916	10,027	6,472	10,862	10,887	
	Hawaii	5,750	4,470	8,900	8,160	9,700	47
Grapefruit:	Inshipments	2,997	2,971	2,461	2,331	2,335	
Grapes:	Inshipments	5,599	5,516	6,096	6,707	7,366	
Lemons:	Inshipments	3,030	3,046	3,459	3,268	3,407	
Nectarines:	Inshipments	1,893	1,830	2,044	2,218	1,891	
Oranges:	Inshipments	18,096	18,013	17,413	17,593	19,347	
	Hawaii	350	590	640	340	450	2
Papayas:	Hawaii [2]	11,460	10,660	14,190	16,200	16,075	100
Pears:	Inshipments	3,741	3,657	4,053	4,050	4,186	
Tangerines:	Inshipments	592	1,519	633	465	423	
	Hawaii	110	70	100	50	75	15
All other fruits:	Inshipments	4,373	5,135	6,558	6,009	5,926	
	Hawaii	370	310	350	460	400	6
Unspecified fruits:	Inshipments [3]	2,072	1,805	1,312	1,391	2,627	
Total:	Inshipments	61,725	67,276	64,318	68,083	72,253	
	Hawaii	19,640	17,270	25,330	26,430	28,000	28
	All	81,365	84,546	89,648	94,513	100,253	

[1] Excludes pineapples, guavas, papayas, and passion fruit used for processing, and quantities shipped out-of-State. [2] Fresh intrastate sales only. Excludes mainland and foreign fresh sales. [3] Proration of shipments of unspecified mixed fruits destined for outlying islands.
Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

MARKET SUPPLY: Fresh Market Fruits, State of Hawaii, 1965-86



MARKET SUPPLY: Fresh market melons, State of Hawaii, 1982-86

Commodity		1982	1983	1984	1985	1986	Hawaii market share 1986
		1,000 pounds					Percent
Cantaloupes:	Inshipments	4,161	4,717	5,056	5,893	5,881	
	Hawaii	[1]	[1]	[1]	--	[1]	[1]
Honeydew melons:	Inshipments	3,048	3,181	3,280	4,141	5,023	
	Hawaii	[1]	[1]	[1]	--	--	--
Watermelons:	Inshipments	7,960	5,910	4,466	2,424	831	
	Hawaii	2,200	3,860	6,090	8,800	14,300	95
Other melons:	Inshipments	416	329	442	402	546	
	Hawaii	25	10	15	0	15	3
Unspecified melons:	Inshipments [2]	453	395	287	304	574	
Total:	Inshipments	16,038	14,532	13,531	13,164	12,855	
	Hawaii	2,225	3,870	6,105	8,800	14,315	53
	All	18,263	18,402	19,636	21,964	27,170	

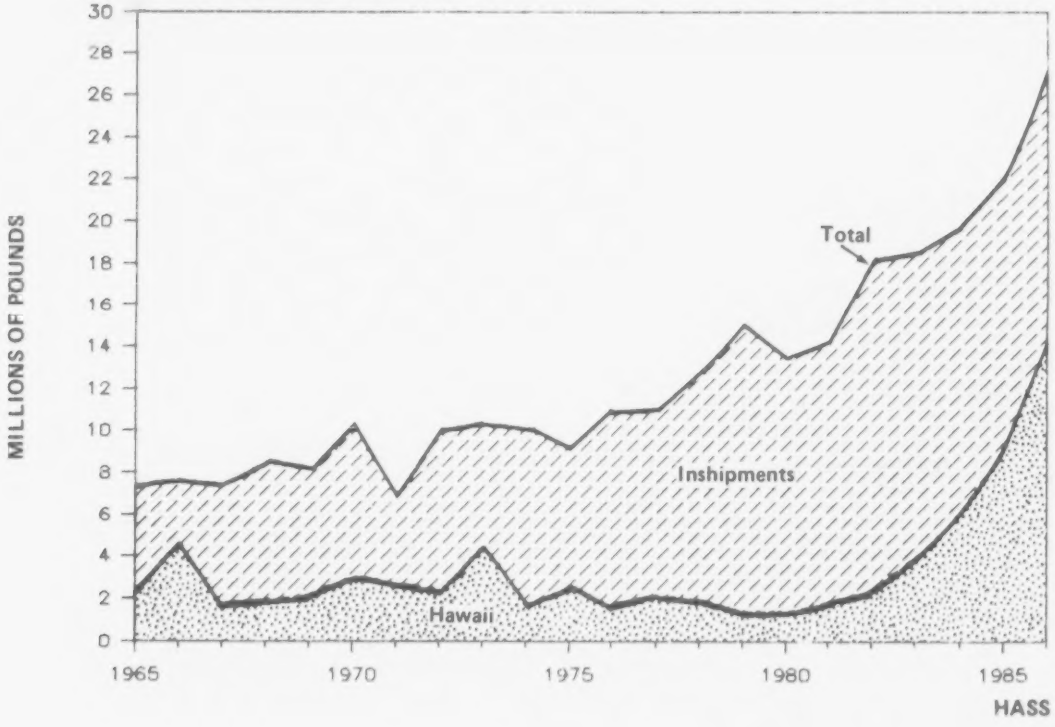
-- = Negligible.

[1] Data included with other melons.

[2] Proration of shipments of unspecified mixed melons destined for outlying islands.

Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

MARKET SUPPLY: Fresh Market Melons, State of Hawaii, 1965-86



MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1982-86

Commodity		1982	1983	1984	1985	1986	Hawaii market share 1986
		1,000 pounds					Percent
Beans, snap:	Inshipments	235	111	72	148	330	
	Hawaii	995	1,360	1,390	1,250	980	75
Bittermelon:	Inshipments	7	1	0	4	8	
	Hawaii	185	260	330	210	300	97
Broccoli:	Inshipments	3,694	3,620	3,832	4,461	5,376	
	Hawaii	570	680	660	960	790	13
Burdock:	Inshipments	0	3	2	4	1	
	Hawaii	560	790	820	750	510	99+
Cabbage, Chinese:	Inshipments	193	5	55	55	102	
	Hawaii [1]	6,120	7,100	6,520	6,970	5,810	98
Cabbage, head:	Inshipments	596	69	325	199	289	
	Hawaii	13,800	15,000	13,190	13,300	14,000	98
Cabbage, mustard:	Inshipments	76	42	24	56	62	
	Hawaii	1,170	1,650	1,770	1,520	1,600	96
Carrots:	Inshipments	8,301	8,304	8,488	9,137	9,624	
	Hawaii	190	150	220	200	160	2
Cauliflower:	Inshipments	1,190	1,214	1,308	1,185	1,575	
	Hawaii	350	375	410	850	710	31
Celery:	Inshipments	4,840	3,882	3,620	4,026	4,909	
	Hawaii	3,150	3,960	4,050	3,450	2,680	35
Corn, sweet:	Inshipments	369	251	248	382	767	
	Hawaii	560	880	1,300	1,060	1,040	58
Cucumbers:	Inshipments	2,094	1,550	1,516	1,708	2,024	
	Hawaii	4,350	5,200	4,870	4,200	3,720	65
Daikon:	Inshipments	6	1	0	50	23	
	Hawaii [1]	2,140	2,400	2,390	3,040	3,330	99
Dasheen:	Inshipments	6	4	7	10	8	
	Hawaii	330	450	240	210	200	96
Eggplant:	Inshipments	263	139	64	133	196	
	Hawaii	1,130	1,480	1,380	1,340	1,300	87
Ginger root:	Inshipments	490	173	82	264	329	
	Hawaii	3,630	5,140	5,050	5,425	5,900	95
Lettuce:	Inshipments	13,956	11,573	12,760	16,021	16,519	
	Hawaii	9,400	12,200	10,200	9,400	8,700	34
Lotus root:	Inshipments	0	4	1	18	13	
	Hawaii	200	185	180	185	150	92
Onions, dry:	Inshipments	14,051	13,260	14,463	14,016	15,679	
	Hawaii	1,350	2,280	2,660	1,890	1,480	9
Onions, green:	Inshipments	564	207	191	204	184	
	Hawaii	800	1,090	1,240	1,410	1,440	89
Parsley, American:	Inshipments	136	37	21	37	44	
	Hawaii	260	330	415	310	320	88
Peas, Chinese:	Inshipments	199	279	328	305	336	
	Hawaii	50	80	80	80	70	17
Peppers, green:	Inshipments	2,020	1,789	1,836	1,788	1,392	
	Hawaii	820	1,190	1,460	1,480	2,050	60
Potatoes:	Inshipments [2]	39,292	37,653	40,741	40,916	43,170	
	Hawaii	--	--	--	--	--	
Pumpkins:	Inshipments	342	500	519	1,087	1,088	
	Hawaii	310	340	330	260	200	16
Radish:	Inshipments	22	10	10	4	14	
	Hawaii	270	330	300	310	205	94

See footnotes at end of table.

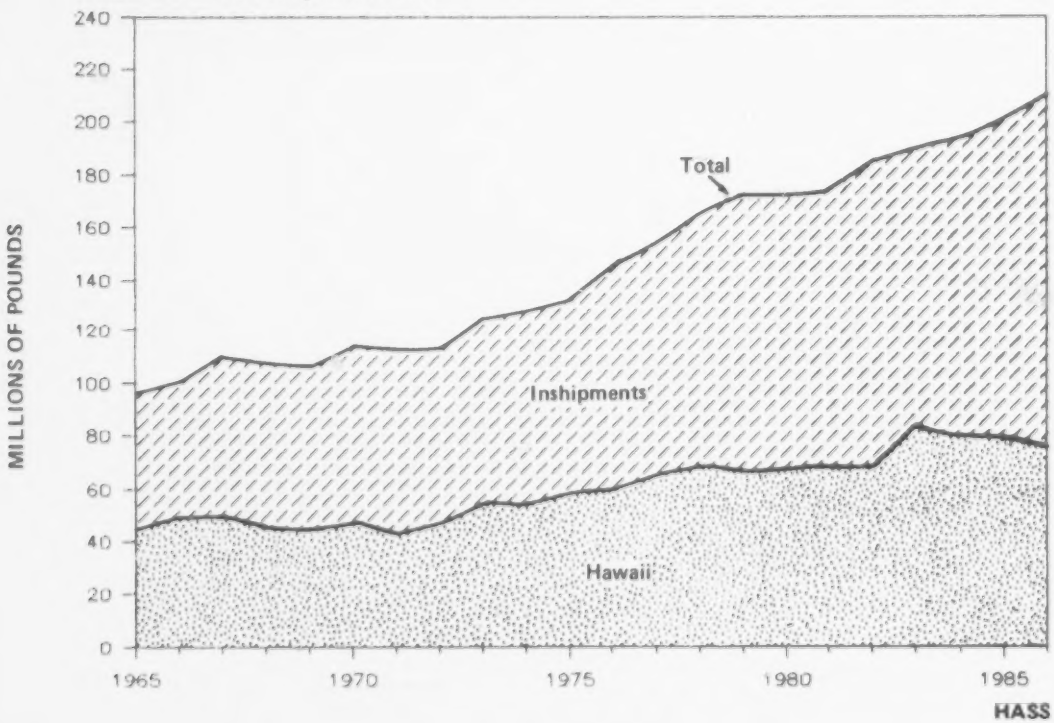
Continued

MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1982-86 -- Continued

Commodity		1982	1983	1984	1985	1986	Hawaii market share 1986
		1,000 pounds					Percent
Romaine:	Inshipments	965	742	1,015	1,332	1,673	
	Hawaii	2,130	2,620	2,320	2,520	2,300	58
Squash, Italian:	Inshipments	1,685	1,327	1,030	1,015	1,125	
	Hawaii	390	740	960	1,160	1,030	48
Squash, Oriental:	Inshipments	70	69	48	101	143	
	Hawaii	445	555	650	490	400	74
Sweetpotatoes:	Inshipments	616	633	614	719	676	
	Hawaii	1,530	1,860	1,720	1,910	2,100	76
Taro:	Inshipments	980	793	677	1,013	667	
	Hawaii [1]	307	346	290	590	490	42
Tomatoes:	Inshipments	8,454	8,195	9,434	9,824	11,234	
	Hawaii	7,800	8,700	7,700	7,800	6,700	37
Watercress:	Inshipments	130	8	6	0	9	
	Hawaii	850	1,300	1,400	1,530	1,300	99
All other vegetables:	Inshipments	7,573	7,428	8,671	8,728	9,488	
	Hawaii	2,060	2,460	3,035	3,460	4,200	31
Unspecified vegetables:	Inshipments [3]	3,951	3,440	2,500	2,652	5,007	
Total:	Inshipments	117,366	107,316	114,508	121,602	134,084	
	Hawaii	68,202	83,481	79,530	79,520	76,165	36
	All	185,568	190,797	194,038	201,122	210,249	

-- = Negligible. [1] Fresh market only. [2] For processing and fresh market. (Potato production for Hawaii included with all other vegetables for Hawaii to avoid disclosure.) [3] Proration of shipments of unspecified mixed vegetables destined for outlying islands.
Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

MARKET SUPPLY: Fresh Market Vegetables, State of Hawaii, 1965-86



SNAP BEANS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	130	7.7	995	80.0	796
1983	185	7.4	1,360	62.8	854
1984	170	8.2	1,390	66.0	917
1985	160	7.8	1,250	77.2	965
1986	**130**	**7.5**	**980**	**77.2**	**757**
			HAWAII/KAUAI [2]		
1982	20	9.0	180	73.0	131
1983	30	6.0	180	64.9	117
1984	20	6.8	135	67.0	90
1985	20	6.0	120	74.1	89
1986	**20**	**5.0**	**100**	**73.5**	**74**
			MAUI/MOLOKAI		
1982	80	7.0	560	79.3	444
1983	105	7.3	770	60.3	464
1984	110	8.4	925	65.2	603
1985	90	8.3	750	73.7	553
1986	**60**	**9.0**	**540**	**72.2**	**390**
			OAHU		
1982	30	8.5	255	86.5	221
1983	50	8.2	410	66.7	273
1984	40	8.3	330	67.8	224
1985	50	7.6	380	85.0	323
1986	**50**	**6.8**	**340**	**86.1**	**293**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai combined with Hawaii to avoid disclosure of individual operations.

SNAP BEANS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production [2]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	15	17	19	15	**13**	63	91	121	122	**94**	89.5	87.1	73.7	82.2	**79.5**
February	14	18	19	12	**16**	73	98	108	102	**105**	91.7	64.8	65.0	86.6	**79.2**
March	12	23	19	20	**16**	77	110	133	107	**112**	89.7	52.7	57.2	80.8	**77.2**
April	17	17	19	14	**16**	119	98	114	122	**98**	87.1	62.6	58.8	78.0	**78.7**
May	17	19	18	16	**14**	107	129	130	119	**106**	76.8	59.5	60.4	71.5	**80.6**
June	19	22	17	14	**15**	115	147	112	120	**103**	76.4	49.1	65.7	71.0	**77.7**
July	18	18	16	12	**13**	107	109	114	102	**70**	69.4	57.7	63.2	66.4	**84.3**
August	16	18	16	11	**9**	77	122	118	89	**44**	71.8	60.6	65.4	73.9	**80.5**
September	15	16	14	10	**9**	77	121	117	82	**61**	75.4	63.8	64.9	78.4	**68.4**
October	15	14	14	10	**11**	77	92	123	106	**64**	75.5	68.9	64.6	80.5	**69.7**
November	16	17	14	9	**10**	58	116	112	99	**48**	77.7	69.0	76.7	71.0	**72.7**
December	14	19	15	13	**12**	45	127	88	80	**75**	86.5	67.9	82.6	88.5	**72.0**
Total or average	130	185	170	160	**130**	995	1,360	1,390	1,250	**980**	80.0	62.8	66.0	77.2	**77.2**

[1] Sum of monthly data exceeds total because harvest period longer than 1 month.
[2] Sum of monthly estimates may not add to annual total due to rounding.

BROCCOLI: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	52	11.0	570	35.5	202
1983	70	9.7	680	36.6	249
1984	70	9.4	660	38.5	254
1985	120	8.0	960	40.0	384
1986	100	7.9	790	45.5	359

BURDOCK: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	30	18.7	560	53.7	301
1983	50	15.8	790	65.0	514
1984	50	16.4	820	63.9	524
1985	45	16.7	750	66.8	501
1986	30	17.0	510	78.0	398

CARROTS: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	13	14.6	190	23.9	45
1983	12	12.5	150	22.5	34
1984	15	14.7	220	21.6	48
1985	15	13.3	200	20.8	42
1986	10	16.0	160	21.7	35

CAULIFLOWER: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	25	14.0	350	30.5	107
1983	25	15.0	375	36.0	135
1984	30	13.7	410	33.0	135
1985	60	14.2	850	38.1	324
1986	70	10.1	710	53.0	376

CHINESE CABBAGE: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	330	23.7	7,820	14.5	1,134
1983	370	23.6	8,750	10.8	945
1984	400	19.8	7,910	13.1	1,036
1985	370	22.4	8,300	13.6	1,129
1986	**350**	**20.6**	**7,200**	**14.2**	**1,022**
			HAWAII		
1982	310	24.1	7,480	14.4	1,077
1983	355	23.9	8,490	10.7	908
1984	380	19.6	7,460	12.7	947
1985	330	22.7	7,480	13.0	972
1986	**330**	**20.6**	**6,800**	**14.1**	**959**
			KAUAI/MAUI/OAHU [2]		
1982	20	17.0	340	16.7	57
1983	15	17.3	260	14.4	37
1984	20	22.5	450	19.7	89
1985	40	20.5	820	19.1	157
1986	**20**	**20.0**	**400**	**15.8**	**63**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai and Oahu combined with Maui to avoid disclosure of individual operations.

CHINESE CABBAGE: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Processing and fresh market									
						Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	25	31	33	30	**28**	671	581	609	685	**580**	14.7	11.2	12.7	21.3	**12.7**
February	25	32	38	38	**28**	635	711	935	776	**759**	16.2	11.1	12.4	17.6	**13.9**
March	27	39	61	43	**37**	841	1,146	1,299	955	**778**	15.6	10.3	10.7	15.0	**13.5**
April	33	36	44	38	**33**	928	1,132	691	1,211	**613**	14.9	12.6	9.2	12.5	**14.2**
May	31	23	36	28	**27**	767	698	514	539	**547**	13.2	15.4	9.8	11.8	**14.9**
June	32	29	25	28	**30**	589	601	594	579	**518**	11.1	11.9	9.8	11.5	**14.2**
July	23	25	28	29	**29**	445	654	561	590	**571**	13.6	9.5	11.8	11.4	**12.5**
August	25	30	31	27	**27**	480	674	598	609	**569**	18.5	10.0	13.7	12.5	**13.2**
September	23	32	30	29	**22**	497	662	532	520	**492**	17.1	9.5	14.2	14.0	**14.1**
October	28	28	27	27	**27**	686	616	543	584	**521**	15.1	9.1	17.2	11.6	**17.2**
November	28	33	28	30	**31**	624	646	516	603	**576**	12.2	8.1	20.3	11.0	**15.7**
December	30	32	19	23	**31**	657	629	518	649	**676**	12.0	9.0	21.2	11.0	**14.8**
Total or average	330	370	400	370	**350**	7,820	8,750	7,910	8,300	**7,200**	14.5	10.8	13.1	13.6	**14.2**

[1] Sum of monthly estimates may not add to annual total due to rounding.

PROCESSED CHINESE CABBAGE AND DAIKON:
Quantity processed, price, and value, State of Hawaii, 1982-86

Year	Chinese cabbage			Daikon		
	Quantity processed	Farm price	Value of sales	Quantity processed	Farm price	Value of sales
	1,000 pounds	Cents per pound	1,000 dollars	1,000 pounds	Cents per pound	1,000 dollars
1982 . . .	1,700	14.4	245	920	10.4	96
1983 . . .	1,650	11.5	190	740	10.6	78
1984 . . .	1,390	13.5	188	610	11.6	71
1985 . . .	1,330	15.7	209	560	12.3	69
1986 . . .	**1,390**	**19.2**	**267**	**570**	**12.3**	**70**

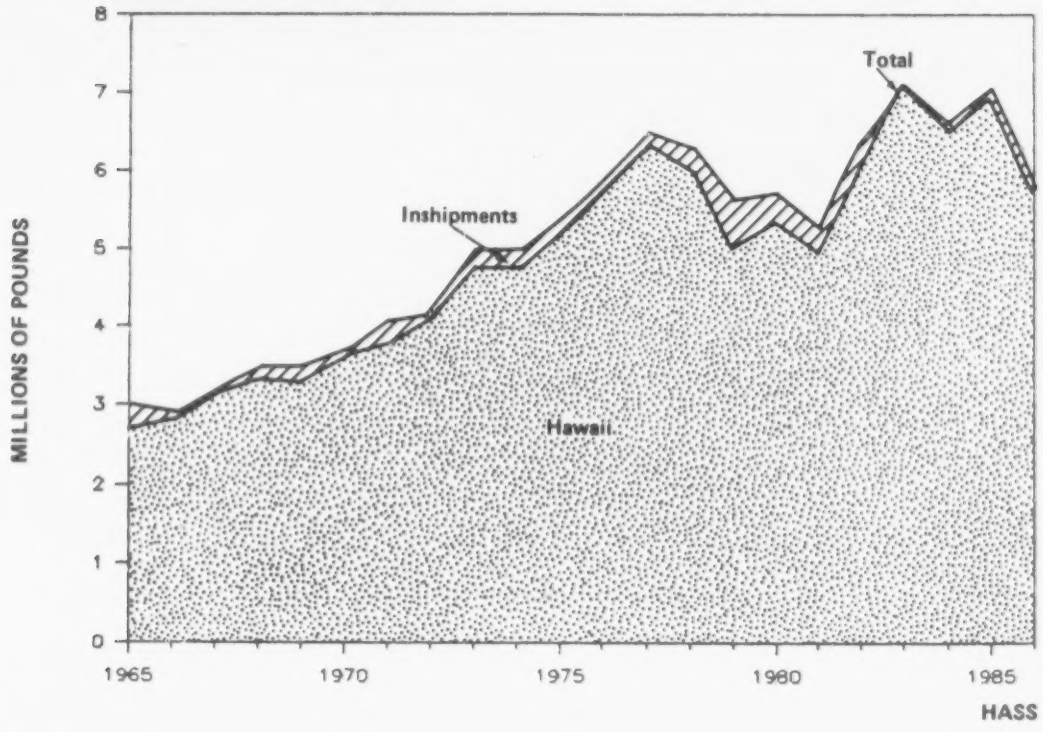
MUSTARD CABBAGE: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	120	9.8	1,170	35.7	418
1983	170	9.7	1,650	30.5	503
1984	165	10.7	1,770	30.3	536
1985	160	9.5	1,520	32.4	492
1986	**140**	**11.4**	**1,600**	**34.1**	**546**

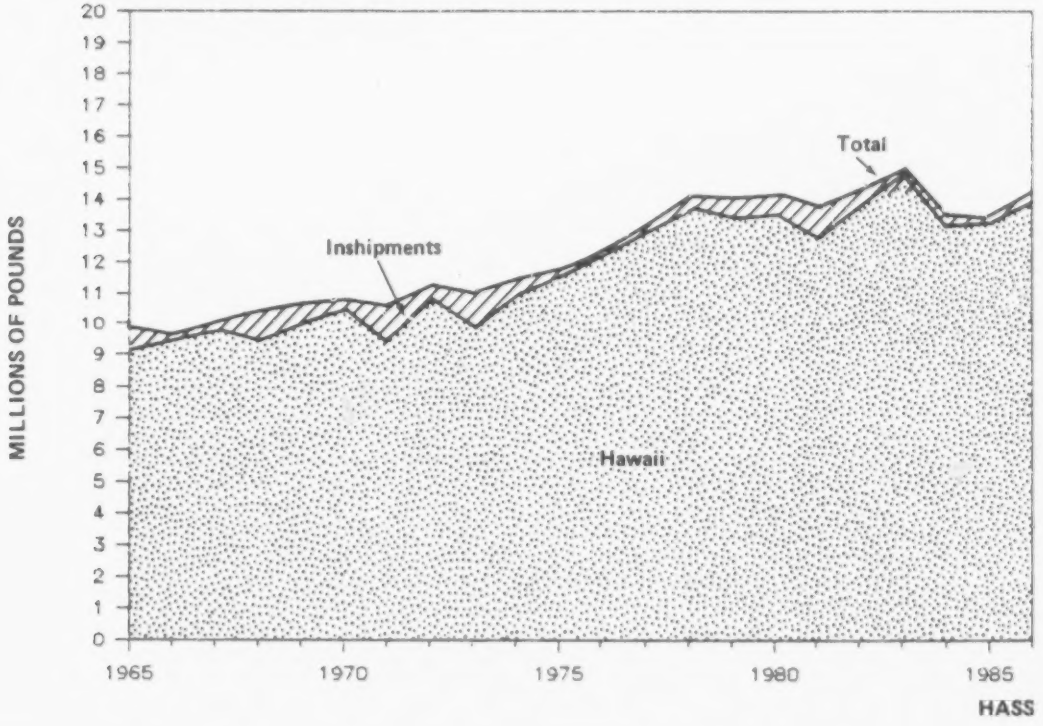
DASHEEN: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	13	25.4	330	65.1	215
1983	18	25.0	450	52.4	236
1984	12	20.0	240	52.5	126
1985	10	21.0	210	50.0	105
1986	**10**	**20.0**	**200**	**64.3**	**129**

MARKET SUPPLY: Fresh Market Chinese Cabbage, State of Hawaii, 1965-86



MARKET SUPPLY: Fresh Market Head Cabbage, State of Hawaii, 1965-86



HEAD CABBAGE: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	540	25.5	13,800	14.1	1,946
1983	550	27.3	15,000	11.8	1,770
1984	470	28.1	13,190	15.6	2,058
1985	460	28.9	13,300	16.3	2,168
1986	**490**	**28.6**	**14,000**	**15.5**	**2,170**
			HAWAII/KAUAI/OAHU [2]		
1982	125	21.6	2,700	12.9	348
1983	130	23.1	3,000	10.2	306
1984	125	21.5	2,690	12.5	336
1985	130	22.7	2,950	14.9	440
1986	**150**	**20.1**	**3,020**	**14.4**	**435**
			MAUI		
1982	415	26.7	11,100	14.4	1,598
1983	420	28.6	12,000	12.2	1,464
1984	345	30.4	10,500	16.4	1,722
1985	330	31.4	10,350	16.7	1,728
1986	**340**	**32.3**	**10,980**	**15.8**	**1,735**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai and Oahu combined with Hawaii to avoid disclosure of individual operations.

HEAD CABBAGE: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production [1]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	43	42	42	32	**42**	1,218	1,220	1,184	1,130	**1,232**	15.4	13.3	14.4	18.1	**13.6**
February	45	52	39	36	**42**	1,156	1,269	1,158	1,053	**1,166**	15.6	12.8	16.5	17.9	**11.8**
March	49	53	45	40	**42**	1,247	1,420	1,278	1,167	**1,261**	15.8	11.7	16.2	14.9	**13.5**
April	39	51	41	40	**41**	1,152	1,201	1,088	1,069	**1,186**	15.5	10.6	15.0	16.8	**11.8**
May	41	49	40	47	**41**	1,219	1,224	1,177	1,029	**1,263**	15.0	10.2	13.7	15.8	**14.5**
June	43	50	41	40	**41**	1,086	1,237	1,162	1,046	**1,145**	13.0	9.7	13.7	15.9	**14.1**
July	43	47	36	39	**41**	1,181	1,227	1,083	1,103	**1,204**	11.7	9.4	14.5	15.9	**16.0**
August	45	48	40	34	**39**	1,026	1,234	1,083	1,096	**1,161**	11.6	9.9	14.9	17.0	**16.4**
September	47	43	36	36	**39**	906	1,242	962	1,016	**1,057**	13.9	12.7	16.6	17.4	**18.3**
October	48	38	37	40	**41**	1,111	1,224	991	1,214	**975**	14.2	13.7	17.6	16.3	**20.3**
November	45	39	38	37	**38**	1,135	1,247	943	1,093	**1,067**	13.6	13.7	18.0	15.4	**19.4**
December	52	38	35	39	**43**	1,363	1,255	1,081	1,284	**1,283**	13.0	14.0	17.5	14.9	**17.3**
Total or average	540	550	470	460	**490**	13,800	15,000	13,190	13,300	**14,000**	14.1	11.8	15.6	16.3	**15.5**

[1] Sum of monthly estimates may not add to State total due to rounding.

CELERY: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	75	42.0	3,150	19.4	611
1983	110	36.0	3,960	19.7	780
1984	115	35.2	4,050	20.0	810
1985	110	31.4	3,450	19.5	673
1986	100	26.8	2,680	21.5	576
			HAWAII		
1982	60	40.7	2,440	19.1	466
1983	90	34.9	3,140	19.2	603
1984	100	34.4	3,440	19.3	664
1985	90	30.0	2,700	18.7	505
1986	85	25.4	2,160	20.7	447
			MAUI		
1982	15	47.3	710	20.4	145
1983	20	41.0	820	21.6	177
1984	15	40.7	610	23.9	146
1985	20	37.5	750	22.4	168
1986	15	34.7	520	24.8	129

[1] Sum of island estimates may not add to State total due to rounding.

CELERY: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	6	7	9	8	11	293	256	321	228	252	20.6	17.8	29.3	24.4	21.1
February	5	7	12	8	7	242	270	345	242	247	20.8	17.7	28.8	21.7	20.2
March	6	8	10	9	8	263	326	381	272	265	21.7	18.3	23.5	18.7	20.6
April	6	9	13	11	9	270	347	391	344	240	19.6	19.7	19.6	17.4	20.5
May	6	10	10	10	8	280	369	391	363	213	19.4	22.3	16.6	17.4	23.1
June	7	10	10	10	6	313	362	382	326	240	20.0	21.1	17.2	19.4	22.7
July	7	10	10	9	10	310	394	396	355	244	18.1	20.0	17.4	19.2	20.9
August	6	10	9	12	9	253	334	347	310	212	17.4	17.6	16.6	18.8	21.2
September	6	10	9	8	8	202	313	330	255	182	18.5	18.2	16.2	20.3	21.2
October	6	9	9	8	8	215	291	309	257	184	18.4	19.2	17.2	18.4	21.5
November	7	10	8	8	7	232	355	228	238	175	18.7	19.2	18.2	20.3	22.3
December	7	10	6	9	9	277	343	229	260	226	18.6	23.4	20.2	20.4	23.3
Total or average	75	110	115	110	100	3,150	3,960	4,050	3,450	2,680	19.4	19.7	20.0	19.5	21.5

SWEET CORN: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	170	3.3	560	33.4	187
1983	250	3.5	880	33.8	297
1984	315	4.1	1,300	35.8	465
1985	255	4.2	1,060	36.6	388
1986	255	4.1	1,040	36.0	374
			HAWAII/KAUAI [2]		
1982	16	4.7	75	32.0	24
1983	25	5.4	135	31.3	42
1984	40	5.8	230	28.4	65
1985	35	5.1	180	31.2	56
1986	20	5.5	110	29.4	32
			MAUI/MOLOKAI		
1982	9	3.9	35	45.7	16
1983	20	4.0	80	46.3	37
1984	25	5.6	140	42.0	59
1985	20	4.0	80	42.3	34
1986	15	6.0	90	39.0	35
			OAHU		
1982	145	3.1	450	32.6	147
1983	205	3.2	665	32.8	218
1984	250	3.7	930	36.7	341
1985	200	4.0	800	37.2	298
1986	220	3.8	840	36.5	307

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai combined with Hawaii to avoid disclosure of individual operations.

SWEET CORN: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested					Production [1]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	11	5	12	16	**11**	30	10	43	60	**43**	31.1	33.3	36.7	37.0	**37.3**
February	6	9	12	15	**14**	26	13	40	53	**66**	33.5	33.8	37.9	37.0	**36.3**
March	2	6	19	14	**18**	10	18	88	47	**113**	36.0	34.5	45.3	38.0	**39.0**
April	6	11	22	16	**22**	28	60	95	78	**75**	38.9	32.4	36.5	39.4	**38.1**
May	11	26	25	22	**24**	37	95	105	120	**100**	33.8	33.2	36.2	38.9	**39.6**
June	19	28	22	27	**24**	66	103	135	127	**98**	34.3	31.9	37.3	37.8	**34.8**
July	24	26	40	29	**35**	95	102	171	132	**131**	32.0	37.7	37.4	36.4	**31.2**
August	18	27	42	27	**22**	67	90	129	129	**83**	31.6	34.4	40.2	36.4	**32.5**
September	12	31	37	23	**26**	49	85	135	77	**99**	30.7	31.5	37.1	33.6	**38.0**
October	14	31	31	22	**21**	51	116	105	71	**88**	31.7	31.7	28.6	34.6	**36.6**
November	25	30	30	29	**23**	68	120	152	119	**85**	36.9	35.3	28.5	34.9	**34.3**
December	22	20	23	15	**15**	33	68	102	47	**59**	34.5	36.3	31.2	32.9	**35.7**
Total or average	170	250	315	255	**255**	560	880	1,300	1,060	**1,040**	33.4	33.8	35.8	36.6	**36.6**

[1] Sum of monthly estimates may not add to annual total due to rounding.

CUCUMBERS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	225	19.3	4,350	31.1	1,353
1983	250	20.8	5,200	26.6	1,383
1984	230	21.2	4,870	27.7	1,349
1985	260	16.2	4,200	29.7	1,247
1986	220	16.9	3,720	31.8	1,183
			HAWAII		
1982	90	30.6	2,750	28.2	776
1983	100	33.2	3,320	23.9	793
1984	100	30.6	3,060	26.1	799
1985	95	23.2	2,200	27.2	598
1986	70	23.1	1,620	28.1	455
			KAUAI		
1982	35	11.6	405	27.8	113
1983	20	9.5	190	28.6	54
1984	15	16.0	240	29.0	70
1985	15	14.0	210	27.9	59
1986	25	11.2	280	33.4	94
			MAUI/MOLOKAI		
1982	25	13.2	330	30.5	101
1983	50	11.2	560	25.9	145
1984	55	12.7	700	27.8	195
1985	55	10.2	560	31.6	177
1986	50	12.0	600	33.2	199
			OAHU		
1982	75	11.7	865	42.0	363
1983	80	14.1	1,130	34.6	391
1984	60	14.5	870	32.8	285
1985	95	12.9	1,230	33.6	413
1986	75	16.3	1,220	35.6	434

[1] Sum of island estimates may not add to State total due to rounding.

CUCUMBERS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production [2]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	33	24	46	56	**23**	385	328	522	296	**200**	30.3	32.8	25.4	35.3	**37.9**
February	21	24	32	21	**21**	335	380	387	225	**262**	41.6	37.1	33.4	36.8	**34.3**
March	25	20	28	26	**22**	299	257	573	228	**203**	40.6	35.2	32.2	33.3	**38.3**
April	33	25	29	23	**17**	377	395	351	368	**231**	34.1	33.0	28.6	30.4	**37.2**
May	28	31	27	37	**17**	299	557	472	425	**335**	31.5	22.9	27.4	27.5	**32.1**
June	32	31	24	33	**27**	466	611	356	418	**376**	29.6	20.3	22.5	27.4	**26.3**
July	34	28	24	32	**25**	561	374	365	489	**439**	18.1	21.6	23.1	29.1	**24.4**
August	31	27	18	28	**21**	309	422	342	401	**349**	25.4	23.3	25.7	28.0	**26.6**
September	24	22	26	32	**23**	326	324	405	484	**369**	32.0	27.0	26.0	26.3	**29.0**
October	18	23	23	26	**23**	325	357	330	333	**353**	32.4	31.2	27.9	26.6	**34.7**
November	23	29	27	24	**19**	337	522	435	270	**301**	33.1	26.3	27.9	29.5	**34.6**
December	21	42	25	21	**24**	331	673	332	263	**302**	34.8	22.1	30.4	34.4	**37.6**
Total or average	225	250	230	260	**220**	4,350	5,200	4,870	4,200	**3,720**	31.1	26.6	27.7	29.7	**31.8**

[1] Sum of monthly data exceeds total because harvest period longer than 1 month.
[2] Sum of monthly estimates may not add to annual total due to rounding.

DAIKON: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	180	17.0	3,060	17.8	545
1983	190	16.5	3,140	15.7	493
1984	200	15.0	3,000	17.1	513
1985	260	13.8	3,600	17.8	641
1986	**260**	**15.0**	**3,900**	**17.6**	**686**
			HAWAII		
1982	100	19.4	1,940	14.0	272
1983	80	19.8	1,580	12.2	193
1984	80	15.0	1,200	11.6	139
1985	130	13.8	1,800	14.7	265
1986	**130**	**14.6**	**1,900**	**14.4**	**274**
			MAUI/OAHU [2]		
1982	80	14.0	1,120	24.4	273
1983	110	14.2	1,560	19.2	300
1984	120	15.0	1,800	20.8	374
1985	130	13.8	1,800	20.9	376
1986	**130**	**15.4**	**2,000**	**20.6**	**412**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Maui combined with Oahu to avoid disclosure of individual operations.

DAIKON: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Processing and fresh market									
						Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	17	15	18	18	**25**	230	329	294	280	**361**	21.7	20.6	14.9	19.7	**17.9**
February	13	14	17	17	**22**	207	272	252	229	**324**	19.5	15.1	15.5	21.8	**16.0**
March	11	16	17	21	**27**	242	271	301	273	**284**	20.6	12.6	16.9	20.6	**16.3**
April	13	16	17	20	**25**	299	258	249	351	**364**	20.3	18.9	15.0	16.8	**17.6**
May	14	16	15	21	**23**	324	288	247	312	**340**	15.2	16.2	15.2	14.3	**17.3**
June	15	16	18	24	**20**	269	260	260	278	**291**	14.1	14.0	15.7	17.1	**16.5**
July	15	17	15	23	**18**	226	260	211	323	**299**	15.9	13.4	16.4	18.0	**19.2**
August	18	17	17	25	**21**	277	229	231	324	**339**	15.1	13.4	19.4	17.9	**18.4**
September	15	16	15	24	**19**	211	227	161	336	**403**	17.7	15.5	20.3	16.5	**17.5**
October	18	16	19	22	**20**	284	212	289	321	**318**	17.3	15.5	19.8	16.1	**16.0**
November	16	15	15	20	**20**	238	255	235	235	**217**	17.9	15.9	18.0	17.1	**17.1**
December	15	16	17	25	**20**	253	279	270	338	**360**	19.6	15.8	19.4	19.0	**20.7**
Total or average	180	190	200	260	**260**	3,060	3,140	3,000	3,600	**3,900**	17.8	15.7	17.1	17.8	**17.6**

[1] Sum of monthly estimates may not add to State total due to rounding.

EGGPLANT: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	45	25.1	1,130	45.2	511
1983	60	24.7	1,480	48.0	710
1984	60	23.0	1,380	44.2	610
1985	55	24.4	1,340	51.0	683
1986	55	23.6	1,300	49.7	646
			HAWAII/MAUI/MOLOKAI [2]		
1982	11	22.7	250	40.7	102
1983	15	24.0	360	40.7	147
1984	15	22.0	330	41.3	136
1985	10	21.0	210	41.7	88
1986	6	20.0	120	43.2	52
			KAUAI		
1982	14	29.3	410	42.5	174
1983	15	26.7	400	42.6	170
1984	10	26.0	260	41.0	107
1985	10	28.0	280	48.5	136
1986	7	25.7	180	50.0	90
			OAHU		
1982	20	23.5	470	50.1	235
1983	30	24.0	720	54.6	393
1984	35	22.6	790	46.4	367
1985	35	24.3	850	54.0	459
1986	42	23.8	1,000	50.4	504

[1] Sum of island estimates may not add to State total due to rounding.
[2] Maui and Molokai combined with Hawaii to avoid disclosure of individual operations.

GINGER ROOT: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Out-of-State sales	Farm price	Value of sales
	Acres	1,000 pounds			Cents per pound	1,000 dollars
1982	100	36.3	3,630	NA	92.3	3,350
1983	160	32.1	5,140	NA	54.6	2,806
1984	135	37.4	5,050	NA	45.1	2,280
1985	125	43.4	5,425	NA	82.3	4,465
1986	145	40.7	5,900	NA	81.0	4,779

NA = Not available.

GINGER ROOT: U. S. imports by product type, 1982-86

Product form	1982	1983	1984	1985	1986
	1,000 pounds				
Unground	10,476	7,855	9,189	12,344	11,232
Candied, glace, etc.	315	2,465	633	644	432
Ground, not candied	103	168	73	57	64
Total	10,894	10,488	9,895	13,045	11,728

Source: Economic Research Service, U. S. Department of Agriculture.

LETTUCE (HEAD, SEMI-HEAD): Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	650	14.5	9,400	26.2	2,463
1983	840	14.5	12,200	23.0	2,806
1984	730	14.0	10,200	24.1	2,458
1985	650	14.5	9,400	24.9	2,341
1986	**620**	**14.0**	**8,700**	**27.2**	**2,366**
			HAWAII		
1982	290	13.4	3,900	23.6	920
1983	350	12.9	4,520	21.2	958
1984	370	11.9	4,400	19.9	876
1985	340	10.6	3,590	21.6	775
1986	**280**	**8.9**	**2,500**	**24.5**	**613**
			KAUAI/OAHU [2]		
1982	115	14.8	1,700	32.9	559
1983	120	14.1	1,690	36.0	608
1984	125	11.2	1,400	42.0	588
1985	120	13.3	1,590	36.4	579
1986	**120**	**12.5**	**1,500**	**36.3**	**545**
			MAUI/MOLOKAI		
1982	245	15.5	3,800	25.9	984
1983	370	16.2	5,990	20.7	1,240
1984	235	18.7	4,400	22.6	994
1985	190	22.2	4,220	23.4	987
1986	**220**	**21.4**	**4,700**	**25.7**	**1,208**

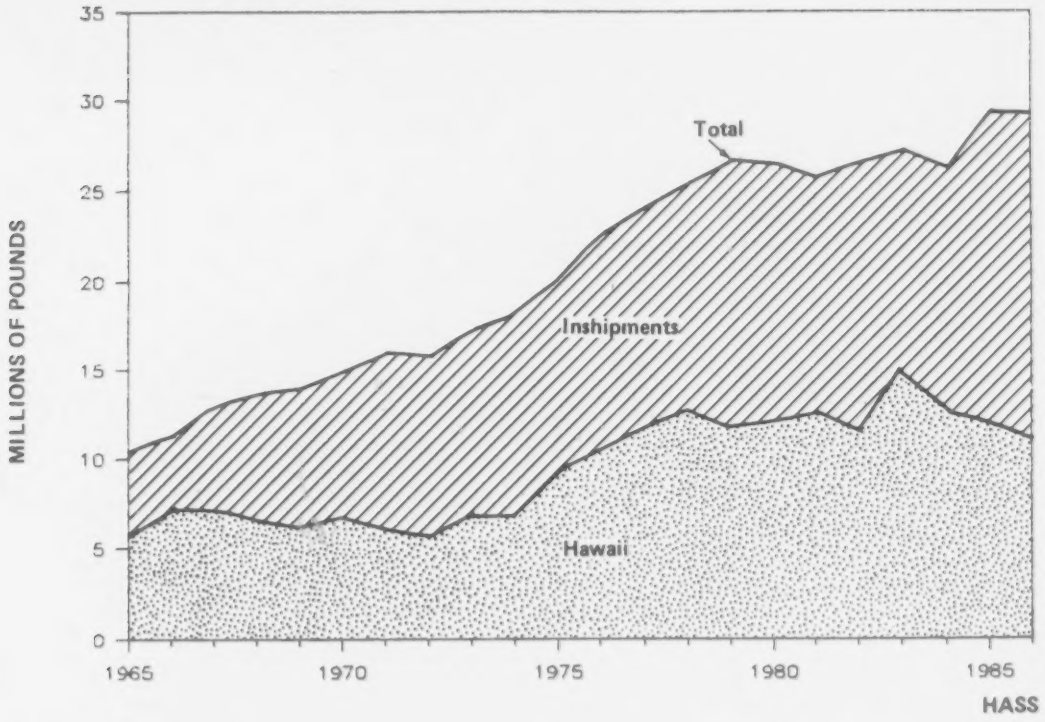
[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai combined with Oahu to avoid disclosure of individual operations.

LETTUCE (HEAD, SEMI-HEAD): Acreage, production, and price, State of Hawaii, 1982-86

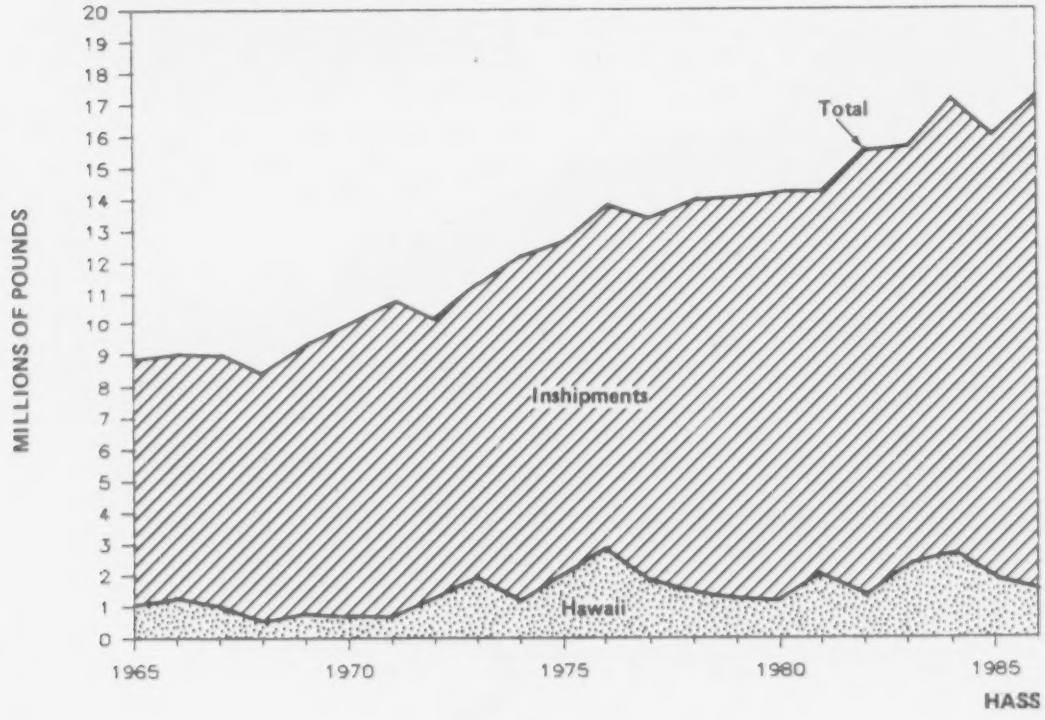
Month	Acreage harvested [1]					Production [1]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	53	55	69	50	**59**	561	777	894	686	**906**	35.3	27.2	27.1	30.0	**28.8**
February	47	67	71	56	**53**	511	939	1,030	705	**844**	39.5	23.6	26.4	27.8	**23.4**
March	55	82	71	56	**58**	611	1,302	1,184	954	**950**	28.4	19.2	22.3	25.2	**23.0**
April	50	79	66	56	**51**	858	1,228	1,053	998	**770**	27.8	18.4	20.6	21.7	**23.9**
May	56	82	63	61	**49**	1,071	1,284	1,035	951	**808**	23.4	21.4	21.7	21.0	**27.1**
June	54	76	64	54	**51**	957	1,184	994	907	**753**	22.2	22.2	21.8	22.8	**27.9**
July	57	69	63	61	**51**	902	1,067	841	849	**703**	22.7	21.8	22.6	22.0	**28.0**
August	50	69	71	52	**52**	759	1,016	916	627	**638**	24.0	22.5	22.1	24.1	**28.5**
September	55	68	56	50	**52**	793	922	740	609	**534**	25.8	23.3	23.8	27.1	**31.2**
October	56	61	51	48	**50**	1,034	802	545	676	**565**	23.4	26.4	29.4	27.2	**30.1**
November	60	63	46	54	**50**	753	833	490	635	**635**	24.8	28.2	31.4	27.1	**28.9**
December	57	69	39	52	**44**	590	846	478	803	**594**	28.0	28.0	28.7	27.3	**29.7**
Total or average	650	840	730	650	**620**	9,400	12,200	10,200	9,400	**8,700**	26.2	23.0	24.1	24.9	**27.2**

[1] Sum of monthly estimates may not add to State total due to rounding.

MARKET SUPPLY: Fresh Market Lettuce, State of Hawaii, 1965-86



MARKET SUPPLY: Fresh Market Dry Onions, State of Hawaii, 1965-86



DRY ONIONS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	105	12.9	1,350	66.2	894
1983	150	15.2	2,280	55.4	1,263
1984	200	13.3	2,660	61.4	1,633
1985	165	11.5	1,890	71.6	1,353
1986	**140**	**10.6**	**1,480**	**73.9**	**1,094**
			HAWAII/KAUAI/OAHU [2]		
1982	10	10.0	100	64.0	64
1983	10	14.0	140	50.5	71
1984	10	11.0	110	49.8	55
1985	5	8.0	40	66.3	27
1986	**10**	**10.0**	**100**	**67.0**	**67**
			MAUI/MOLOKAI		
1982	95	13.2	1,250	66.4	830
1983	140	15.3	2,140	55.7	1,192
1984	190	13.4	2,550	61.9	1,578
1985	160	11.6	1,850	71.7	1,326
1986	**130**	**10.6**	**1,380**	**74.4**	**1,027**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai and Oahu combined with Hawaii to avoid disclosure of individual operations.

DRY ONIONS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	5	8	13	12	7	95	101	128	163	115	61.7	69.2	73.6	75.6	**70.7**
February	12	12	15	18	23	96	181	147	150	202	70.7	71.4	66.2	85.5	**62.0**
March	12	12	18	11	11	173	169	326	81	163	77.9	68.3	43.4	75.6	**53.7**
April	8	10	18	17	14	90	226	255	221	180	72.0	58.0	44.1	79.3	**71.1**
May	7	16	11	23	5	100	329	189	231	122	66.7	47.5	63.3	75.9	**78.1**
June	11	14	14	20	7	145	266	216	209	120	60.7	37.5	62.2	62.8	**85.1**
July	10	14	19	19	11	144	218	249	197	132	59.4	31.0	64.0	63.8	**83.7**
August	7	13	17	10	11	75	126	228	133	110	56.6	38.5	60.9	66.1	**80.0**
September	12	12	19	10	12	126	164	213	132	106	59.9	49.4	60.1	66.6	**85.4**
October	5	17	16	12	8	61	167	184	142	85	60.5	70.4	56.8	66.0	**83.8**
November	9	14	21	7	14	141	194	292	129	58	71.2	70.6	78.5	66.6	**80.5**
December	7	8	19	6	17	104	139	233	102	87	69.0	78.8	74.6	75.8	**77.7**
Total or average	105	150	200	165	140	1,350	2,280	2,660	1,890	1,480	66.2	55.4	61.4	71.6	**73.9**

[1] Sum of monthly estimates may not add to State total due to rounding.

GREEN ONIONS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	115	7.0	800	84.3	674
1983	150	7.3	1,090	69.9	762
1984	170	7.3	1,240	69.7	864
1985	200	7.1	1,410	75.7	1,067
1986	**190**	**7.6**	**1,440**	**81.3**	**1,171**
			HAWAII/KAUAI [2]		
1982	10	6.5	65	78.5	51
1983	10	7.0	70	69.1	48
1984	15	7.0	105	67.7	71
1985	15	5.7	85	71.9	61
1986	**15**	**6.0**	**90**	**83.9**	**76**
			MAUI/MOLOKAI		
1982	10	6.0	60	95.0	57
1983	10	10.0	100	89.2	89
1984	10	12.5	125	84.1	105
1985	15	9.7	145	79.4	115
1986	**10**	**11.0**	**110**	**81.3**	**89**
			OAHU		
1982	95	7.1	675	83.9	566
1983	130	7.1	920	67.9	625
1984	145	7.0	1,010	68.1	688
1985	170	6.9	1,180	75.5	891
1986	**165**	**7.5**	**1,240**	**81.1**	**1,006**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai combined with Hawaii to avoid disclosure of individual operations.

GREEN ONIONS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	9	10	14	17	17	42	77	106	98	117	98.0	96.1	71.4	84.4	**83.0**
February	6	11	12	16	**16**	38	85	90	104	**104**	115.0	80.2	77.5	89.3	**80.8**
March	4	13	13	15	**15**	36	93	96	92	**124**	108.5	78.7	74.0	87.9	**81.0**
April	8	13	13	15	**15**	52	107	99	102	**117**	115.6	71.8	70.3	77.0	**83.4**
May	9	14	15	17	**12**	77	108	115	120	**134**	89.5	63.7	61.2	65.7	**79.4**
June	12	14	15	18	**14**	107	101	116	128	**118**	64.2	51.2	58.6	64.3	**77.1**
July	11	13	12	17	**13**	90	96	101	120	**117**	59.7	54.5	60.3	63.8	**75.8**
August	11	12	15	18	**17**	90	83	112	135	**113**	66.9	63.9	69.4	66.8	**77.7**
September	11	11	14	17	**16**	65	80	93	126	**115**	79.1	76.4	76.7	70.9	**83.2**
October	12	11	15	19	**17**	72	71	107	127	**110**	82.4	72.0	74.5	77.8	**82.9**
November	11	14	16	16	**18**	70	87	112	124	**123**	86.9	69.2	74.7	81.7	**85.4**
December	11	14	16	15	**20**	61	102	93	134	**148**	109.6	70.3	71.7	85.8	**85.1**
Total or average	115	150	170	200	**190**	800	1,090	1,240	1,410	**1,440**	84.3	69.9	69.7	75.7	**81.3**

LOTUS ROOT: Acreage, yield, production, price, and value, State of Hawaii, 1982-86 [1]

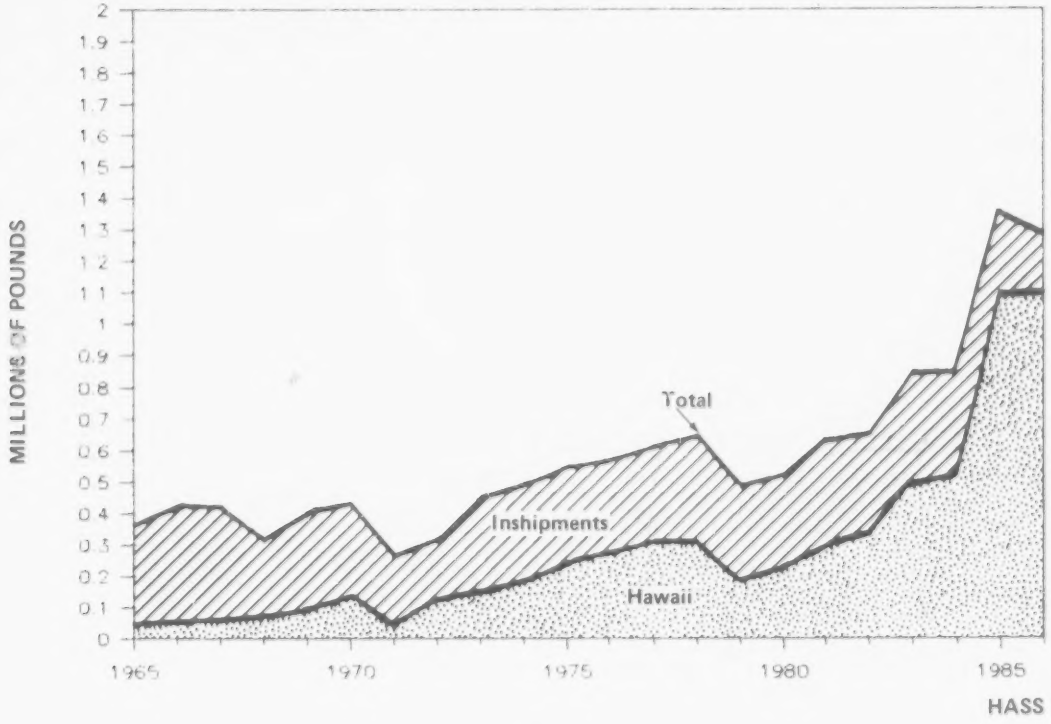
Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	35	5.7	200	108.6	217
1983	35	5.3	185	109.5	203
1984	30	6.0	180	115.0	207
1985	35	5.3	185	134.0	248
1986	35	4.3	150	132.0	198

[1] State production all on Island of Oahu.

PUMPKINS: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1982	23	13.5	310	21.0	65
1983	25	13.6	340	24.3	83
1984	30	11.0	330	25.5	84
1985	20	13.0	260	22.8	59
1986	15	13.3	200	23.2	46

MARKET SUPPLY: Fresh Market Pumpkins, State of Hawaii, 1965-86



GREEN PEPPERS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	55	14.9	820	48.1	394
1983	80	14.9	1,190	53.0	631
1984	110	13.3	1,460	46.7	682
1985	120	12.3	1,480	55.0	814
1986	190	10.8	2,050	43.6	894
			HAWAII		
1982	12	13.3	160	45.5	73
1983	10	11.0	110	53.8	59
1984	10	11.0	110	52.0	57
1985	13	9.2	120	54.3	65
1986	15	6.0	90	55.0	50
			KAUAI		
1982	17	15.3	260	51.4	134
1983	17	16.5	280	49.5	139
1984	15	15.3	230	40.3	93
1985	20	18.5	370	47.8	177
1986	30	13.7	410	40.2	165
			MAUI/MOLOKAI		
1982	18	15.3	275	44.3	121
1983	45	14.4	650	54.6	355
1984	70	12.6	880	48.0	422
1985	80	11.0	880	57.8	509
1986	130	10.2	1,330	43.2	575
			OAHU		
1982	8	15.6	125	52.7	66
1983	8	18.8	150	51.7	78
1984	15	16.0	240	45.8	110
1985	7	15.7	110	56.9	63
1986	15	14.7	220	47.4	104

[1] Sum of island estimates may not add to State total due to rounding.

GREEN PEPPERS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	17	8	17	33	**34**	41	54	118	114	**148**	54.7	47.9	43.3	52.7	**43.4**
February	13	8	20	31	**29**	65	65	120	103	**206**	55.7	66.6	52.8	63.7	**36.2**
March	12	12	20	35	**29**	62	94	224	113	**177**	58.8	73.8	43.3	66.3	**41.2**
April	10	17	30	26	**30**	58	137	170	169	**161**	57.1	66.2	37.1	65.6	**53.0**
May	12	23	23	17	**26**	84	165	232	98	**160**	58.0	52.5	39.8	60.2	**54.9**
June	18	16	20	15	**26**	107	133	99	114	**136**	55.1	47.6	48.4	59.1	**49.5**
July	20	17	17	22	**23**	86	119	81	143	**139**	46.1	51.7	53.0	49.2	**47.8**
August	20	13	10	21	**21**	96	106	47	109	**125**	38.4	47.7	57.1	48.9	**40.3**
September	13	10	10	17	**24**	65	75	72	77	**136**	35.7	44.7	55.6	48.0	**40.8**
October	12	8	16	18	**26**	58	69	83	111	**226**	36.3	41.3	51.7	45.1	**40.8**
November	9	11	21	20	**32**	62	79	106	151	**210**	36.8	43.2	48.6	49.6	**40.4**
December	6	9	32	25	**40**	36	94	108	178	**226**	41.5	45.5	58.7	50.7	**40.4**
Total or average	55	80	110	120	**190**	820	1,190	1,460	1,480	**2,050**	48.1	53.0	46.7	55.0	**43.6**

[1] Sum of monthly data exceeds total because harvest period longer than 1 month.

ROMAINE: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE		
1982	115	18.5	2,130	23.9	509
1983	140	18.7	2,620	19.5	511
1984	135	17.2	2,320	21.5	499
1985	150	16.8	2,520	22.8	575
1986	**160**	**14.4**	**2,300**	**25.2**	**580**
			HAWAII		
1982	65	18.2	1,180	23.6	278
1983	80	19.5	1,560	20.1	314
1984	90	16.9	1,520	20.6	313
1985	95	15.3	1,450	21.6	313
1986	**90**	**11.7**	**1,050**	**26.2**	**275**
			MAUI		
1982	50	19.0	950	24.3	231
1983	60	17.7	1,060	18.6	197
1984	45	17.8	800	23.2	186
1985	55	19.5	1,070	24.5	262
1986	**70**	**17.9**	**1,250**	**24.4**	**305**

ROMAINE: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production [1]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	8	7	13	10	11	134	166	170	162	173	36.6	22.5	25.0	29.4	**26.6**
February	8	11	14	14	10	107	208	228	165	180	41.0	21.3	25.3	29.2	**25.0**
March	9	14	14	12	12	145	257	254	239	254	37.3	17.7	20.3	26.0	**23.0**
April	10	14	13	13	10	191	266	214	229	163	28.1	16.0	16.6	20.7	**23.5**
May	11	14	13	13	12	244	270	210	253	193	22.7	15.5	18.2	19.9	**25.4**
June	11	15	12	13	12	227	274	198	254	224	18.0	15.5	17.9	18.0	**23.5**
July	11	12	11	14	16	226	225	203	248	244	16.4	15.9	19.3	18.5	**23.1**
August	9	11	10	12	13	154	176	205	199	171	18.9	19.5	20.2	21.5	**25.5**
September	9	10	10	13	13	162	186	188	192	160	20.9	21.1	19.3	24.6	**28.0**
October	10	11	10	13	13	215	179	182	200	190	20.1	24.8	24.3	22.7	**28.7**
November	9	10	8	11	18	167	191	143	177	191	20.3	26.2	28.2	23.9	**25.4**
December	10	11	7	12	20	158	222	125	202	157	22.1	24.4	29.5	24.6	**26.8**
Total or average	115	140	135	150	160	2,130	2,620	2,320	2,520	2,300	23.9	19.5	21.5	22.8	**25.2**

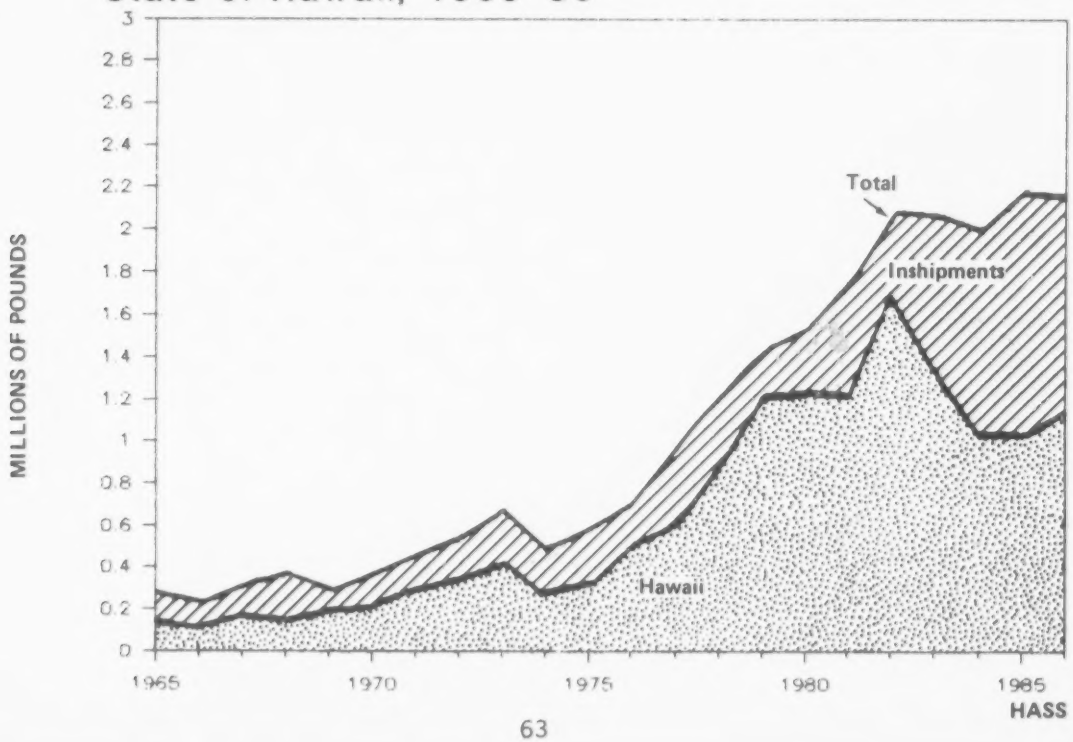
[1] Sum of monthly estimates may not add to State total due to rounding.

SQUASH, ITALIAN: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	34	11.5	390	36.2	141
1983	70	10.6	740	32.0	237
1984	90	10.7	960	32.2	309
1985	110	10.5	1,160	31.7	368
1986	**100**	**10.3**	**1,030**	**32.3**	**333**
			HAWAII		
1982	20	11.5	230	36.5	84
1983	37	10.0	370	31.6	117
1984	40	10.0	400	30.6	122
1985	40	9.5	380	29.5	112
1986	**45**	**8.2**	**370**	**31.0**	**115**
			KAUAI/OAHU [2]		
1982	3	10.0	30	39.3	12
1983	6	11.7	70	35.1	25
1984	6	11.7	70	35.6	25
1985	4	10.0	40	35.0	14
1986	**2**	**10.0**	**20**	**35.5**	**7**
			MAUI		
1982	11	11.8	130	35.0	45
1983	27	11.1	300	31.8	95
1984	44	11.1	490	33.0	162
1985	66	11.2	740	32.7	242
1986	**53**	**12.1**	**640**	**33.0**	**211**

[1] Sum of island estimates may not add to State total due to rounding.
[2] Oahu combined with Kauai to avoid disclosure of individual operations.

MARKET SUPPLY: Fresh Market Squash, Italian, State of Hawaii, 1965-86



SWEETPOTATOES: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	130	11.8	1,530	25.2	386
1983	190	9.8	1,860	25.4	472
1984	175	9.8	1,720	27.3	470
1985	200	9.6	1,910	28.6	546
1986	210	10.0	2,100	27.1	569
			HAWAII/KAUAI [2]		
1982	15	8.7	130	24.1	31
1983	15	11.3	170	25.9	44
1984	15	9.3	140	27.9	39
1985	15	8.7	130	29.6	38
1986	15	10.0	150	29.8	45
			MAUI/MOLOKAI		
1982	80	12.5	1,000	22.9	229
1983	115	9.5	1,090	22.3	243
1984	120	9.7	1,160	24.8	288
1985	155	9.5	1,480	27.1	401
1986	165	9.6	1,590	24.6	391
			OAHU		
1982	35	11.4	400	31.4	126
1983	60	10.0	600	30.8	185
1984	40	10.5	420	34.1	143
1985	30	10.0	300	35.7	107
1986	30	12.0	360	37.0	133

[1] Sum of island estimates may not add to State total due to rounding.
[2] Kauai combined with Hawaii to avoid disclosure of individual operations.

SWEETPOTATOES: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	11	13	13	9	**18**	84	168	143	133	**198**	28.1	25.0	27.6	29.7	**28.0**
February	10	13	17	16	**16**	90	140	133	131	**155**	29.4	26.1	27.8	29.8	**26.2**
March	10	15	12	13	**13**	112	122	152	81	**134**	29.4	25.5	27.4	31.5	**26.2**
April	6	15	14	21	**14**	86	128	167	145	**188**	28.2	26.5	26.9	30.2	**25.5**
May	10	18	14	20	**20**	105	172	193	170	**198**	27.9	25.1	26.0	30.8	**27.6**
June	9	20	12	17	**19**	140	225	151	206	**197**	29.5	24.2	26.0	29.3	**28.3**
July	12	17	16	16	**18**	143	148	127	269	**183**	27.1	24.3	26.7	26.4	**25.9**
August	13	21	14	16	**15**	143	195	114	200	**102**	24.1	26.1	27.2	24.2	**28.1**
September	13	19	16	15	**19**	173	163	109	133	**157**	23.3	24.8	28.8	25.3	**27.3**
October	10	13	17	18	**18**	161	131	200	113	**179**	21.0	24.7	28.3	28.0	**27.9**
November	13	12	14	19	**19**	156	150	133	137	**186**	19.3	26.0	27.7	30.1	**27.0**
December	13	14	16	20	**21**	137	118	98	192	**223**	22.3	27.2	27.9	31.4	**26.9**
Total or average	130	190	175	200	**210**	1,530	1,860	1,720	1,910	**2,100**	25.2	25.4	27.3	28.6	**27.1**

TOMATOES: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	260	34.7	7,800	30.0	2,707
1983	290	38.7	8,700	30.0	3,367
1984	280	27.5	7,700	40.3	3,103
1985	300	26.0	7,800	40.2	3,136
1986	240	28.0	6,700	41.0	2,747
			HAWAII		
1982	125	40.8	5,100	35.7	1,821
1983	125	41.5	5,190	39.8	2,066
1984	130	34.7	4,510	41.9	1,890
1985	140	33.2	4,650	41.8	1,944
1986	110	33.2	3,650	42.5	1,551
			KAUAI		
1982	5	17.0	85	48.2	41
1983	3	16.7	50	52.9	26
1984	5	22.0	110	54.8	60
1985	10	15.0	150	37.4	56
1986	15	16.7	250	37.6	94
			MAUI/MOLOKAI		
1982	120	20.6	2,475	30.7	760
1983	145	21.2	3,080	35.4	1,090
1984	125	21.0	2,620	35.1	920
1985	135	18.9	2,550	36.1	921
1986	105	23.3	2,450	37.7	924
			OAHU		
1982	10	18.5	185	45.8	85
1983	17	22.4	380	48.6	185
1984	20	23.0	460	50.7	233
1985	15	30.0	450	47.8	215
1986	10	35.0	350	50.9	178

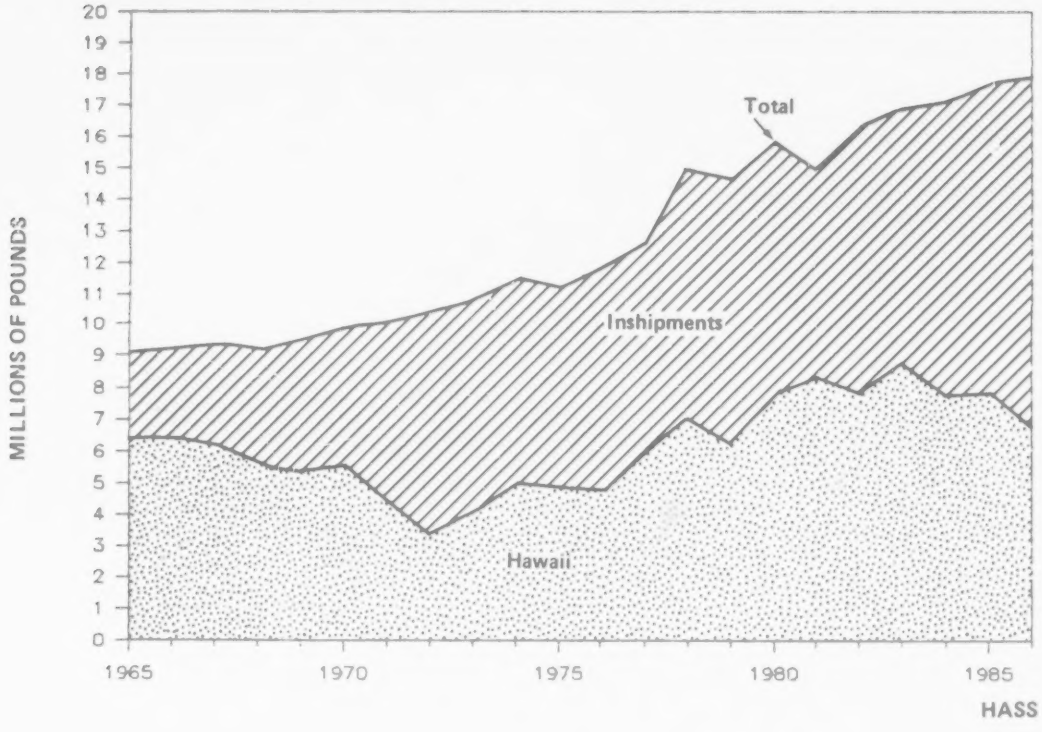
[1] Sum of island estimates may not add to State total due to rounding.

TOMATOES: Acreage, production, and price, State of Hawaii, 1982-86

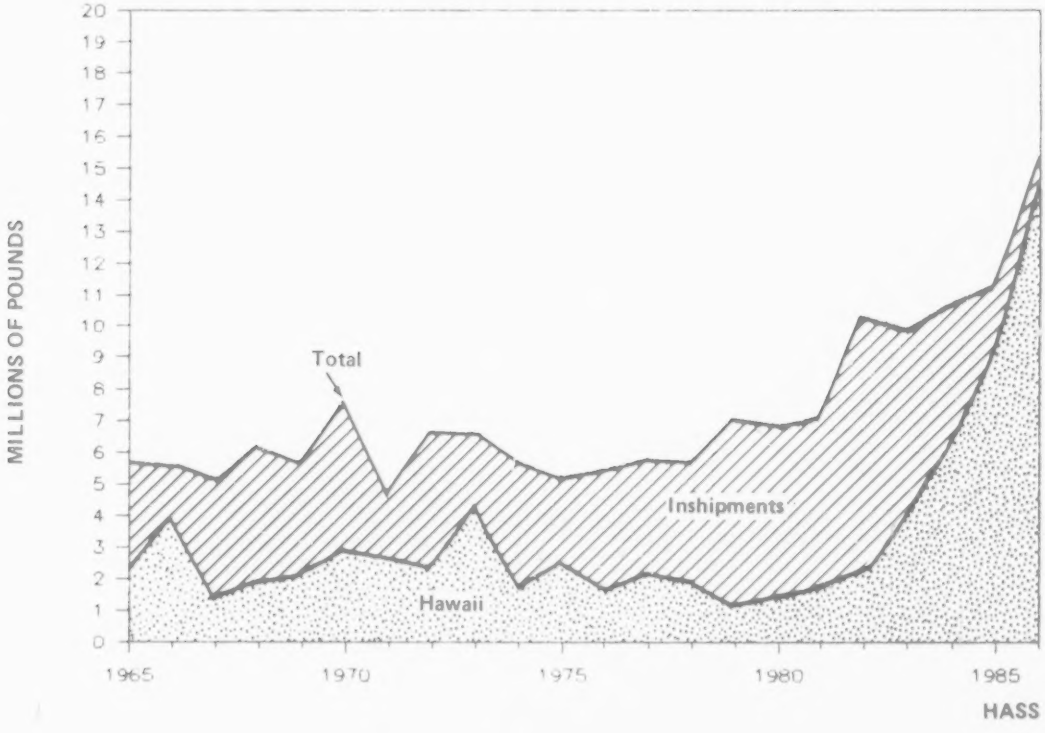
Month	Acreage harvested [1]					Production [2]					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	58	43	56	46	58	822	585	878	750	**718**	34.4	45.5	35.1	37.7	**47.6**
February	58	45	41	42	50	660	748	901	808	**671**	40.4	42.1	37.3	40.8	**39.1**
March	52	45	58	49	52	734	808	873	748	**866**	36.9	44.5	38.6	42.8	**37.3**
April	50	49	54	52	43	746	783	736	747	**747**	31.6	45.9	41.9	47.2	**39.1**
May	52	56	41	52	43	572	911	603	640	**597**	29.3	42.7	42.4	42.0	**41.7**
June	54	48	43	44	39	726	766	684	608	**480**	34.3	35.2	40.9	39.5	**41.1**
July	50	43	42	38	31	733	564	557	686	**397**	31.6	33.2	38.9	37.5	**39.4**
August	42	46	43	38	24	593	675	465	567	**356**	32.6	34.9	43.6	35.6	**39.4**
September	47	50	34	40	29	520	727	427	493	**342**	32.0	33.0	44.0	34.1	**38.0**
October	41	50	28	48	39	511	643	376	686	**415**	33.8	33.8	44.1	34.9	**39.0**
November	47	42	30	42	46	654	652	493	414	**439**	36.0	35.6	46.9	40.4	**47.0**
December	47	53	43	48	51	574	838	707	653	**672**	41.6	35.5	39.0	47.2	**42.8**
Total or average	260	290	280	300	240	7,800	8,700	7,700	7,800	**6,700**	34.7	38.7	40.3	40.2	**41.0**

[1] Sum of monthly data exceeds total because harvest period longer than 1 month.
[2] Sum of monthly estimates may not add to annual total due to rounding.

MARKET SUPPLY: Fresh Market Tomatoes, State of Hawaii, 1965-86



MARKET SUPPLY: Fresh Market Watermelons, State of Hawaii, 1965-86



WATERMELONS: Acreage, yield, production, price, and value, by islands, 1982-86

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE [1]		
1982	165	13.3	2,200	24.9	548
1983	310	12.5	3,860	19.9	768
1984	400	15.2	6,090	18.5	1,127
1985	480	18.3	8,800	17.0	1,496
1986	620	23.1	14,300	12.6	1,802
			HAWAII		
1982	18	8.6	155	23.1	36
1983	15	8.0	120	20.9	25
1984	10	6.5	65	22.4	14
1985	5	8.0	40	22.8	9
1986	10	8.5	85	16.3	14
			KAUAI		
1982	18	15.0	270	20.2	55
1983	55	13.5	740	19.0	141
1984	45	16.9	760	19.2	146
1985	45	10.2	460	20.3	93
1986	30	10.7	320	16.0	51
			MAUI/MOLOKAI		
1982	53	16.5	875	22.0	192
1983	170	13.3	2,260	17.9	405
1984	270	16.8	4,525	17.5	792
1985	345	20.7	7,150	16.4	1,173
1986	460	25.9	11,915	12.0	1,430
			OAHU		
1982	76	11.8	900	29.5	265
1983	70	10.6	740	26.6	197
1984	75	9.9	740	23.7	175
1985	85	13.5	1,150	19.2	221
1986	120	16.5	1,980	15.5	307

[1] Sum of island estimates may not add to State total due to rounding.

WATERMELONS: Acreage, production, and price, State of Hawaii, 1982-86

Month	Acreage harvested [1]					Production					Farm price				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	Acres					1,000 pounds					Cents per pound				
January	1	2	1	6	**5**	7	11	5	14	**4**	22.0	21.8	28.8	23.1	**22.0**
February	1	0	1	4	**6**	2	0	3	12	**3**	23.2	0	25.8	31.3	**25.6**
March	2	0	11	3	**12**	2	0	58	18	**171**	40.0	0	19.8	30.0	**26.3**
April	2	19	33	28	**66**	4	168	457	250	**768**	40.0	22.7	23.6	29.1	**16.1**
May	5	66	73	61	**102**	36	697	1,045	1,662	**2,314**	25.4	23.4	22.6	20.8	**14.0**
June	16	78	86	73	**103**	123	744	919	1,890	**2,582**	24.8	21.1	21.5	15.1	**13.2**
July	54	63	59	81	**136**	437	567	999	1,718	**2,962**	28.3	18.8	17.1	14.9	**11.0**
August	75	51	54	116	**112**	801	670	816	1,649	**3,029**	23.4	17.1	16.8	13.9	**10.6**
September	39	67	77	98	**96**	309	458	769	608	**1,928**	20.5	19.3	15.0	19.5	**11.6**
October	31	40	41	61	**66**	187	348	691	648	**435**	26.6	17.5	13.3	18.0	**17.7**
November	24	19	22	41	**12**	216	160	229	287	**71**	28.6	18.0	17.3	18.5	**20.4**
December	12	4	10	15	**17**	76	37	99	44	**33**	24.1	18.7	17.1	19.5	**17.0**
Total or average	165	310	400	480	**620**	2,200	3,860	6,090	8,800	**14,300**	24.9	19.9	18.5	17.0	**12.6**

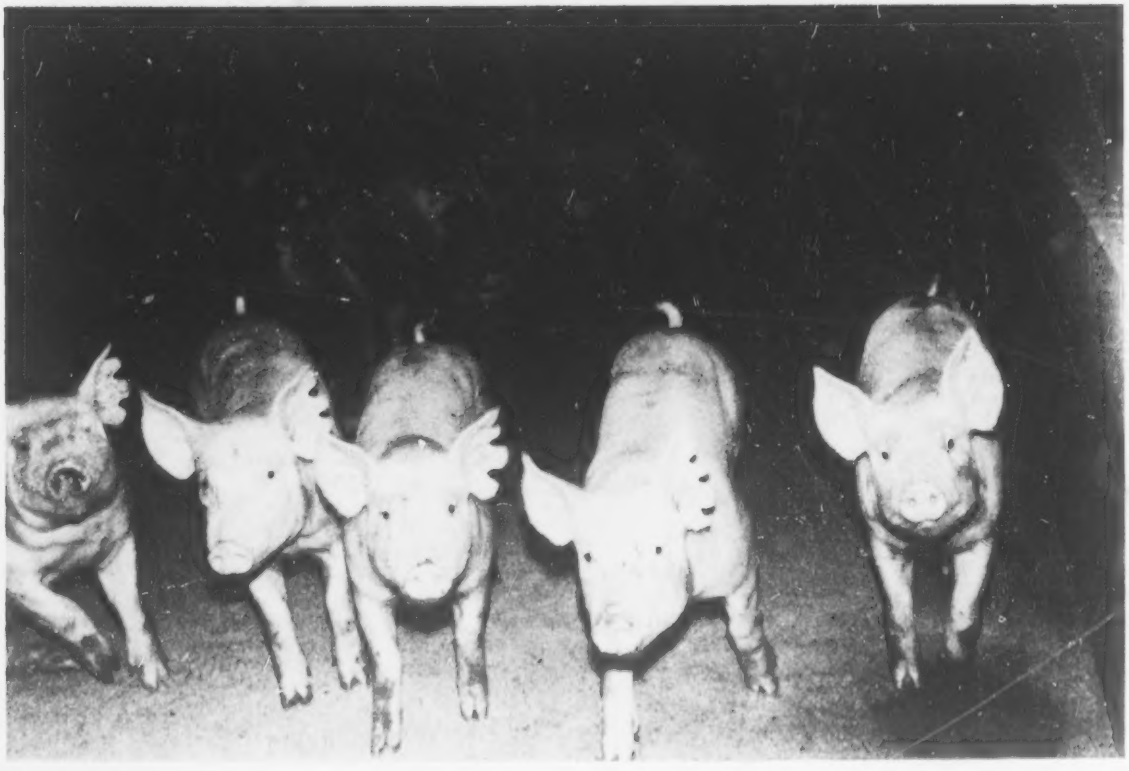
[1] Sum of monthly data exceeds total because harvest period longer than 1 month.

WATERCRESS: Acreage, production, price, and value, State of Hawaii, 1982-86

Year	Acreage in crop	Production	Farm price	Value of sales
	Acres	1,000 pounds	Cents per pound	1,000 dollars
1982	25	850	73.2	622
1983	30	1,300	83.4	1.084
1984	35	1,400	83.8	1,173
1985	35	1,530	79.2	1,212
1986	30	1,300	83.6	1,087

MINOR CROPS: Acreage, yield, production, price, and value, State of Hawaii, 1982-86

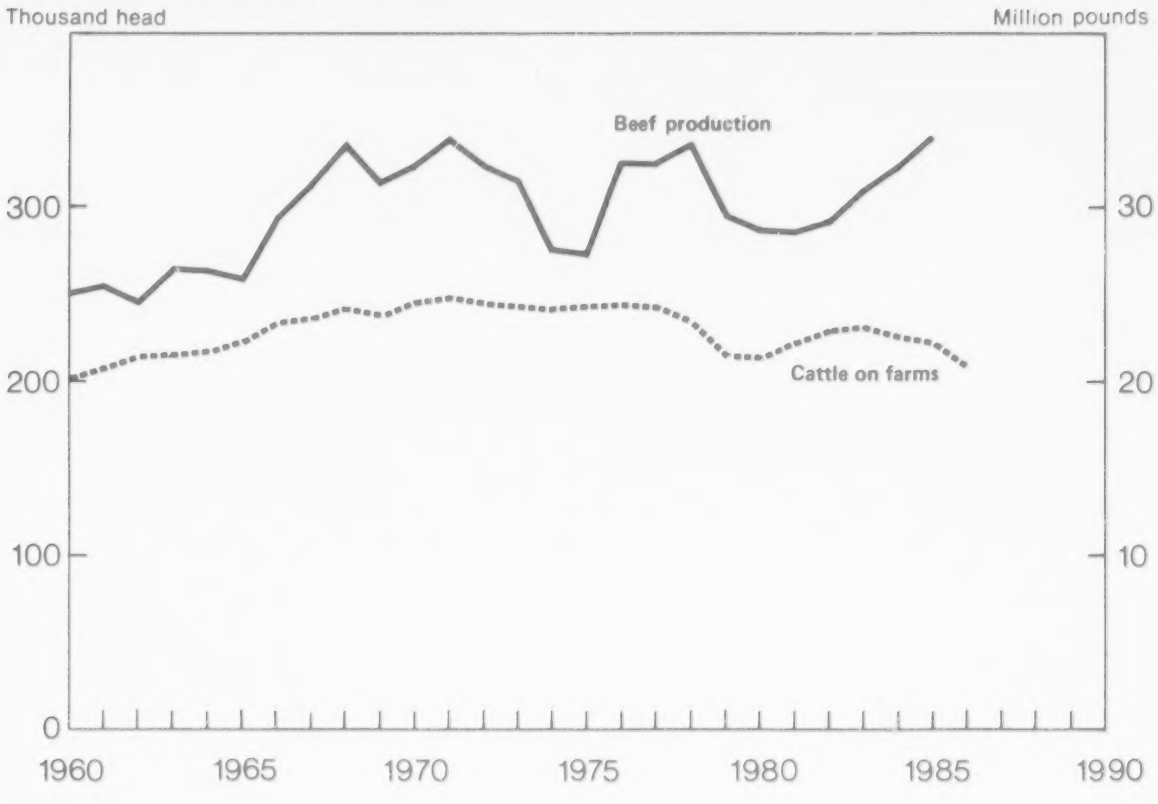
Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			BITTERMELON		
1982	16	11.6	185	84.5	156
1983	20	13.0	260	66.8	174
1984	25	13.2	330	57.7	190
1985	20	10.5	210	78.0	164
1986	30	10.0	300	71.7	215
			ORIENTAL SQUASH (HYOTAN AND TOGAN)		
1982	35	12.7	445	28.8	128
1983	40	13.9	555	21.9	122
1984	50	13.0	650	24.0	156
1985	35	14.0	490	26.3	129
1986	30	13.3	400	30.2	121
			PARSLEY		
1982	18	14.4	260	73.4	191
1983	25	13.2	330	70.4	232
1984	30	13.8	415	78.1	324
1985	25	12.4	310	80.1	248
1986	25	12.8	320	82.2	263
			RADISH		
1982	26	10.4	270	34.4	93
1983	35	9.4	330	32.8	108
1984	35	8.6	300	32.4	97
1985	35	8.9	310	35.9	111
1986	20	10.3	205	35.3	72
			CHINESE PEAS		
1982	10	5.0	50	192.0	96
1983	15	5.3	80	196.1	157
1984	15	5.3	80	196.5	157
1985	15	5.3	80	196.6	157
1986	15	4.7	70	165.7	116



1986 LIVESTOCK SUMMARY

Revenues from livestock sales totaled $83.4 million during 1986, up less than 1 percent from 1985. Increased revenues from the marketing of milk, pork and honey offset declines from the beef, egg and poultry industries. The **DAIRY** industry retained it's number one ranking among livestock enterprises on the strength of record cash receipts which hit $30.6 million, an increase of $2.3 million from 1985. Revenues from milk sales was the most a single livestock industry has ever generated. It surpassed the previous high of $30.3 million in 1981, also earned by the dairy industry. However, the 1986 level was accomplished with fewer cows than in 1981, and a lower farm price. A record high 156.0 million pounds of milk was produced from a cow herd of 11,500 cows. Returns from **CATTLE** sales dropped $2.0 million to $24.6 million as both total marketings and average prices farmers received fell below 1985 levels. Beef marketings totaled 62.3 million pounds, 4 percent less than 1985. The inventory of cattle and calves on January 1, 1987 was 195,000 head, the fourth year of decline and the lowest total since 1958. Earnings from the sales of **EGGS, BROILERS, AND CHICKENS** decreased 4 percent from 1985 to $18.2 million. All segments of the poultry industry recorded decreases in value during 1986. Although egg production increased 3 percent to 227 million eggs, the average price returned to farmers decreased 5.2 cents to 71.1 cents a dozen and resulted in a 4 percent decrease in revenues to $13.4 million. Returns generated from broiler sales dipped 2 percent from the previous year to $4.6 million, as both the average price and the amount produced declined from a year earlier. **HOG** revenues increased 10 percent to $8.8 million as pork production increased 10 percent to 11.5 million pounds, more than offsetting a slight price decline. The inventory of hogs and pigs declined 5,000 head from the previous year to 50,000 on December 1, 1986, reversing an increase that occurred the previous year. Increased **HONEY** production improved and prices raised the value of sales for honey and beeswax over the $1 million mark for the first time on record.

Hawaii Cattle Numbers and Beef Production



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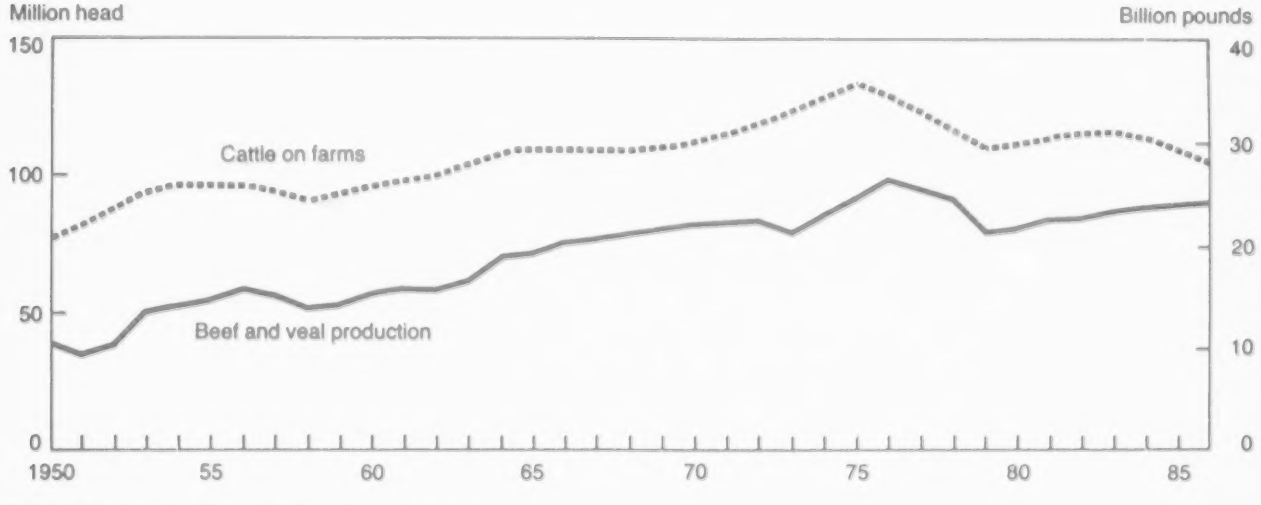
U.S. Cattle Numbers and Beef Production



1986 production forecast. Cattle and calves on farms January 1.

USDA

CATTLE AND CALVES: January 1 inventory by sex classes and weight, by islands, 1983-87

Year	All cattle and calves	All cows and heifers that have calved			Heifers 500 pounds and over				Steers 500 lbs. and over	Bulls 500 lbs. and over	Steers, heifers, and bulls under 500 lbs.
		Total	Beef cows	Milk cows	Total	Beef cow replace-ments	Milk cow replace-ments	Other			
	1,000 head										
	STATE [1]										
1983 . .	230	95	83	12	41	17	8	16	29	8	57
1984 . .	226	93	81	12	45	20	7	18	26	7	55
1985 . .	221	95	83	12	41	16	6	19	23	6	56
1986 . .	209	92	81	11	39	14	5	20	20	6	52
1987 . .	**195**	**80**	**68**	**12**	**42**	**20**	**5**	**17**	**23**	**5**	**45**
	HAWAII										
1983 . .	133.3	57.2	55.7	1.5	24.4	12.3	4.0	8.1	12.3	5.3	34.1
1984 . .	135.8	56.6	55.1	1.5	27.1	15.4	3.1	8.6	12.5	4.8	34.8
1985 . .	128.1	59.1	57.5	1.6	21.3	10.8	3.1	7.4	8.8	4.4	34.5
1986 . .	123.9	57.3	55.8	1.5	20.4	9.2	2.6	8.6	8.5	4.4	33.3
1987 . .	**121.2**	**49.9**	**48.3**	**1.6**	**26.2**	**15.4**	**2.4**	**8.4**	**11.7**	**3.9**	**29.5**
	KAUAI/NIIHAU										
1983 . .	18.3	7.0	6.5	.5	3.2	1.3	.3	1.6	2.7	.4	5.0
1984 . .	16.0	6.3	5.8	.5	2.9	1.4	.2	1.3	2.2	.4	4.2
1985 . .	14.4	5.7	5.2	.5	2.6	1.0	.3	1.3	2.0	.3	3.8
1986 . .	15.0	5.9	5.4	.5	3.0	1.3	.3	1.4	2.0	.4	3.7
1987 . .	**14.1**	**5.7**	**5.2**	**.5**	**2.8**	**1.4**	**.2**	**1.2**	**1.9**	**.4**	**3.3**
	MAUI										
1983 . .	36.3	15.7	14.6	1.1	5.3	2.4	.6	2.3	3.5	1.4	10.4
1984 . .	35.0	15.9	14.9	1.0	5.7	2.3	.6	2.8	3.4	1.3	8.7
1985 . .	33.9	15.1	14.1	1.0	5.7	2.4	.5	2.8	3.0	1.0	9.1
1986 . .	31.7	14.6	13.6	1.0	5.0	2.2	.3	2.5	2.8	.9	8.4
1987 . .	**28.5**	**13.2**	**12.2**	**1.0**	**5.0**	**2.5**	**.2**	**2.3**	**2.6**	**.7**	**7.0**
	MOLOKAI/LANAI										
1983 . .	6.4	3.7	3.7	0	.7	.4	0	.3	.4	.2	1.4
1984 . .	5.9	3.5	3.5	0	.4	.3	0	.1	.2	.2	1.6
1985 . .	7.4	3.8	3.8	0	1.0	.7	0	[2].3	[2].5	.2	1.9
1986 . .	5.4	3.5	3.5	0	.4	.1	0	.3	.4	.1	1.0
1987 . .	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	OAHU										
1983 . .	35.7	11.7	2.4	9.3	7.6	.6	3.3	3.7	10.2	.4	5.8
1984 . .	33.3	11.0	1.6	9.4	8.7	.3	3.3	5.1	8.1	.2	5.3
1985 . .	37.2	11.4	2.5	8.9	10.4	.6	2.3	7.5	8.7	.4	6.3
1986 . .	33.0	10.8	2.5	8.3	10.1	.8	2.2	7.1	6.3	.3	5.5
1987 . .	**31.2**	**11.2**	**2.6**	**8.6**	**7.9**	**.6**	**2.1**	**5.2**	**6.6**	**.3**	**5.2**

[1] State totals may not add due to rounding.
[2] Revised.

CATTLE: Number of operations, by size group, by islands, 1982-86 [1]

Year	Hawaii		Kauai/Niihau		Maui		Molokai		Oahu		State	
	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle
	Number											
1982	490	230	190	85	200	85	30	10	90	50	1,000	460
1983	450	215	180	75	205	80	30	10	85	50	950	430
1984	395	205	165	70	190	80	25	10	75	45	850	410
1985	400	180	165	75	170	75	35	15	80	45	850	390
1986	**365**	**170**	**160**	**60**	**165**	**70**	**35**	**10**	**75**	**40**	**800**	**350**

[1] Difference between "Total" and "20+" is operations having 1-19 head of cattle (dairy and/or beef).

CATTLE AND CALVES: Number sold, pounds, price, and value, by islands, 1982-86

Year	Number sold [1]	Pounds sold (live weight) [2]	Farm price (live weight) [3]	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1982	56	52,910	52.20	27,619
1983	60	59,100	49.60	29,308
1984	65	60,600	46.40	28,101
1985	74	65,160	40.90	26,632
1986	67	62,300	39.60	24,645
		HAWAII		
1982	37.7	36,211	52.20	18,907
1983	38.0	38,188	49.30	18,831
1984	43.0	39,802	45.50	18,126
1985	49.5	42,567	39.60	16,870
1986	42.1	41,244	39.70	16,385
		KAUAI/NIIHAU		
1982	3.9	3,629	52.70	1,913
1983	4.5	4,143	51.60	2,139
1984	4.3	3,988	51.20	2,041
1985	3.8	3,858	48.20	1,860
1986	4.1	3,844	45.10	1,734
		MAUI		
1982	10.0	8,626	53.40	4,603
1983	11.8	10,850	52.10	5,655
1984	12.0	11,134	48.20	5,364
1985	15.2	13,541	43.70	5,920
1986	13.7	11,250	41.50	4,671
		MOLOKAI		
1982	2.7	2,710	53.10	1,440
1983	2.3	2,446	50.60	1,238
1984	3.0	3,056	49.90	1,525
1985	2.5	2,307	39.00	900
1986	5.2	4,101	30.60	1,255
		OAHU		
1982	1.7	1,734	43.60	756
1983	3.4	3,473	41.60	1,445
1984	2.7	2,620	39.90	1,045
1985	3.0	2,887	37.50	1,082
1986	1.9	1,861	32.20	600

[1] Includes custom slaughter for home use on farms where produced and out-of-State sales of cattle and calves; but, excludes interfarm sales. State totals may not add due to rounding.

[2] Excludes custom slaughter for use on farms where produced.

[3] Prices are equivalent delivered slaughterhouse for sales on island of production and delivered shippers' dock for interisland and out-of-State sales.

CATTLE: Number of feedlot slaughter cattle sold, pounds, price, and value, by islands, 1982-86 [1]

Year	Number sold [2]	Pounds sold (live weight) [3]	Farm price (live weight)	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1982	29.4	30,428	57.90	17,624
1983	31.9	35,408	54.90	19,439
1984	33.8	36,245	51.80	18,781
1985	36.5	37,297	45.60	17,007
1986	33.6	35,463	44.50	15,781
		HAWAII		
1982	22.0	23,131	57.80	13,370
1983	22.8	25,669	54.60	14,015
1984	23.3	25,381	51.30	13,017
1985	25.2	26,022	44.70	11,632
1986	26.0	28,055	43.80	12,288
		KAUAI/NIIHAU		
1982	.9	991	55.70	552
1983	.9	992	52.50	521
1984	1.0	1,098	49.30	541
1985	1.0	1,043	44.10	460
1986	.8	840	43.10	362
		MAUI		
1982	4.4	3,993	60.50	2,416
1983	5.8	5,871	57.50	3,376
1984	6.4	6,406	54.50	3,493
1985	8.3	8,114	48.90	3,968
1986	6.3	6,043	48.00	2,901
		MOLOKAI		
1982	1.9	2,058	55.10	1,134
1983	1.6	1,828	52.80	965
1984	2.4	2,614	51.50	1,346
1985	1.1	1,199	42.70	512
1986	.4	377	43.20	163
		OAHU		
1982	.2	255	59.60	152
1983	.8	1,048	53.60	562
1984	.7	746	51.50	384
1985	.9	919	47.30	435
1986	.1	148	45.30	67

[1] Animals fattened on grain or other concentrates which produce a carcass expected to grade good or better.
[2] Includes custom slaughter for home use on farms where produced but excludes interfarm sales.
[3] Excludes custom slaughter for use on farms where produced.

CATTLE: Number of range and other slaughter cattle sold, pounds, price, and value, by islands, 1982-86 [1]

Year	Number sold [2]	Pounds sold (live weight) [3]	Farm price (live weight)	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1982	26.6	22,482	44.50	9,995
1983	28.1	23,692	41.70	9,869
1984	31.2	24,355	38.30	9,320
1985	37.5	27,863	34.50	9,625
1986	33.4	26,837	33.00	8,864
		HAWAII		
1982	15.7	13,080	42.30	5,537
1983	15.2	12,519	38.50	4,816
1984	19.7	14,421	35.40	5,109
1985	24.3	16,545	31.70	5,238
1986	16.1	13,189	31.10	4,097
		KAUAI/NIIHAU		
1982	3.0	2,638	51.60	1,361
1983	3.6	3,151	51.30	1,618
1984	3.3	2,890	51.90	1,500
1985	2.8	2,815	49.70	1,400
1986	3.3	3,004	45.70	1,372
		MAUI		
1982	5.6	4,633	47.20	2,187
1983	6.0	4,979	45.80	2,279
1984	5.6	4,728	39.60	1,871
1985	6.9	5,427	36.00	1,953
1986	7.4	5,207	34.00	1,770
		MOLOKAI		
1982	.8	652	46.90	306
1983	.7	618	44.20	273
1984	.6	442	40.50	179
1985	1.4	1,108	35.00	388
1986	4.8	3,724	29.30	1,092
		OAHU		
1982	1.5	1,479	40.80	604
1983	2.6	2,425	36.40	883
1984	2.0	1,874	35.30	661
1985	2.1	1,968	32.90	647
1986	1.8	1,713	31.10	533

[1] Animals fattened primarily on grass and other roughage; may include some supplementary feeding of grain. Dairy cattle; calves included.
[2] Includes custom slaughter for home use on farms where produced but excludes interfarm sales.
[3] Excludes custom slaughter for use on farms where produced.

CATTLE: Commercial slaughter and marketings, by class, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Commercial slaughter [1]												
	Number -- 1,000 head [2]												
1982	4.6	4.1	4.6	4.6	4.6	4.4	4.1	4.5	4.8	4.6	4.7	4.5	54.0
1983	4.5	4.5	5.5	4.7	4.8	4.8	4.5	5.1	4.5	4.2	4.3	4.7	56.0
1984	4.9	4.8	4.5	4.5	4.4	4.8	5.8	5.1	4.0	5.1	4.7	4.9	57.6
1985	5.2	4.6	5.0	5.0	6.2	5.4	6.5	5.0	4.7	5.8	5.3	5.8	64.6
1986	6.4	5.0	5.6	4.9	4.8	4.6	5.8	5.1	4.7	5.1	4.6	5.3	62.0
	Dressed weight -- 1,000 pounds												
1982	2,342	2,055	2,334	2,392	2,320	2,298	2,129	2,377	2,699	2,506	2,576	2,499	28,527
1983	2,488	2,490	3,060	2,584	2,662	2,610	2,441	2,895	2,573	2,408	2,419	2,651	31,280
1984	2,721	2,692	2,536	2,475	2,398	2,608	3,072	2,783	2,137	2,656	2,458	2,624	31,160
1985	2,727	2,425	2,574	2,578	3,264	2,897	3,373	2,477	2,374	3,057	2,740	2,975	33,461
1986	3,316	2,570	2,885	2,558	2,463	2,399	3,058	2,786	2,646	2,757	2,574	2,900	32,912
	Marketings [3]												
	Feedlot steers and heifers, dressed weight -- 1,000 pounds												
1982	1,521	1,234	1,354	1,436	1,412	1,254	1,209	1,337	1,635	1,397	1,441	1,475	16,705
1983	1,560	1,617	1,825	1,449	1,843	1,599	1,577	1,878	1,547	1,469	1,480	1,595	19,439
1984	2,017	1,761	1,516	1,449	1,477	1,676	2,058	1,596	1,170	1,571	1,602	2,005	19,898
1985	1,818	1,479	1,581	1,394	2,173	1,806	2,109	1,235	1,281	2,000	1,692	1,908	20,476
1986	2,189	1,656	1,397	1,463	1,108	1,240	1,735	1,577	1,705	1,746	1,711	1,942	19,469
	Range steers and heifers, dressed weight -- 1,000 pounds												
1982	427	359	458	580	467	612	501	508	545	581	611	604	6,253
1983	562	515	639	440	463	545	417	523	499	491	493	631	6,218
1984	530	407	433	527	408	400	506	534	462	528	402	467	5,604
1985	464	500	393	478	414	500	572	568	430	365	407	505	5,596
1986	451	293	601	447	464	430	586	522	447	461	387	401	5,490
	Cows, dressed weight -- 1,000 pounds												
1982	319	380	428	304	400	365	379	485	464	434	430	384	4,772
1983	341	330	534	553	299	443	413	453	452	416	400	430	5,064
1984	465	446	438	407	423	439	515	485	415	514	448	447	5,442
1985	401	403	466	598	592	526	605	591	576	561	583	552	6,454
1986	646	613	821	591	851	690	720	667	511	556	478	565	7,709
	Bulls, dressed weight -- 1,000 pounds												
1982	119	126	137	115	84	110	83	90	98	138	138	80	1,318
1983	83	87	121	201	116	82	93	100	134	91	104	52	1,264
1984	90	121	124	104	100	101	118	116	83	90	62	63	1,172
1985	83	82	173	147	124	104	126	122	126	170	96	49	1,402
1986	101	79	137	128	111	110	88	91	54	65	69	63	1,096

[1] Includes custom slaughter for home use. To convert dressed weight to live weight, divide dressed weight by 0.549 or multiply by a factor of 1.8215.
[2] Sum of monthly estimates may not add to annual total due to rounding.
[3] Excludes custom slaughter for home use and calves shipped out-of-State, but includes onfarm sales.

CATTLE: Farm price, by class, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Feedlot steers and heifers, dressed weight – Cents per pound												
1982	104.5	105.5	107.5	110.0	113.0	114.0	108.0	106.5	104.5	97.5	99.0	97.0	105.5
1983	98.5	98.0	103.5	109.5	107.5	105.5	102.5	98.0	93.5	94.0	92.5	95.5	100.0
1984	98.5	99.5	98.5	99.5	97.0	94.5	94.0	94.0	93.5	90.5	88.0	89.5	95.0
1985	87.5	88.0	88.5	88.0	85.5	87.5	80.0	77.0	72.5	79.5	82.5	85.5	83.5
1986	**85.0**	**78.0**	**75.5**	**78.5**	**79.0**	**77.0**	**77.5**	**81.0**	**82.0**	**81.5**	**85.5**	**86.5**	**81.0**
	Range steers and heifers, dressed weight -- Cents per pound												
1982	98.5	95.5	97.5	99.0	93.0	93.0	88.0	87.5	86.5	87.0	78.5	81.0	90.0
1983	86.0	86.0	84.5	88.0	87.5	86.5	84.5	85.5	86.5	85.0	87.0	87.0	86.0
1984	80.5	80.0	78.5	75.5	77.0	83.0	80.0	82.0	80.0	79.5	78.5	81.5	79.5
1985	76.0	78.5	78.5	73.0	77.5	74.0	72.0	70.5	69.5	74.0	71.0	71.0	73.5
1986	**74.0**	**73.5**	**69.5**	**70.5**	**68.0**	**67.0**	**65.0**	**66.0**	**66.5**	**70.5**	**67.0**	**72.5**	**69.0**
	Cows, dressed weight -- Cents per pound												
1982	76.0	73.5	73.5	73.5	71.0	74.0	69.0	69.5	69.5	70.5	66.5	66.5	71.0
1983	66.0	65.5	65.0	65.0	64.0	66.0	65.5	63.5	62.0	61.5	62.0	61.5	64.0
1984	64.0	64.5	61.0	60.5	58.0	60.5	59.0	57.0	61.0	52.5	55.5	55.5	59.0
1985	56.0	57.0	55.5	54.5	53.5	57.0	54.5	57.0	49.5	47.5	47.5	49.5	53.0
1986	**50.5**	**49.5**	**51.5**	**52.0**	**52.5**	**55.5**	**51.0**	**49.0**	**50.0**	**51.0**	**50.5**	**52.5**	**51.5**
	Bulls, dressed weight -- Cents per pound												
1982	81.0	80.0	79.5	80.0	79.5	77.0	79.0	78.5	76.5	77.5	75.0	76.0	78.5
1983	73.0	74.0	74.0	73.0	73.0	75.5	73.5	72.0	72.0	73.0	71.5	73.0	73.0
1984	71.5	71.5	71.0	69.5	66.0	67.0	66.5	64.5	66.0	63.5	61.0	64.5	67.5
1985	64.5	63.0	63.0	63.5	63.5	64.0	62.5	59.5	57.5	57.5	55.5	57.0	61.0
1986	**55.0**	**61.0**	**58.5**	**57.5**	**62.5**	**64.5**	**62.5**	**58.0**	**59.0**	**59.5**	**62.0**	**61.0**	**60.0**
	All cattle, dressed weight -- Cents per pound												
1982	98.5	96.5	98.0	101.5	101.0	100.5	95.5	94.0	94.5	89.5	88.0	88.0	95.0
1983	90.5	90.5	92.0	93.5	98.0	94.0	92.5	89.5	86.0	86.0	85.5	87.5	90.5
1984	88.5	90.0	87.5	87.0	85.5	86.0	85.0	84.0	83.5	80.5	80.0	82.0	85.0
1985	80.5	80.0	79.0	76.5	78.0	78.5	73.5	70.0	65.5	72.0	72.5	76.0	75.5
1986	**76.5**	**71.0**	**67.0**	**70.5**	**67.5**	**69.0**	**69.0**	**70.5**	**73.0**	**73.5**	**76.5**	**77.0**	**72.0**

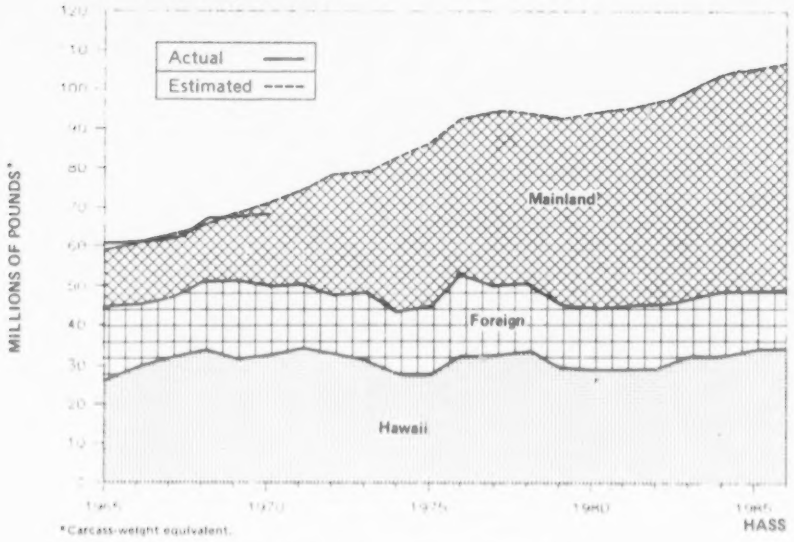
[1] Prices are for commercial slaughter cattle.

CATTLE AND CALVES: Inventory and disposition, State of Hawaii, 1982-86

Year	Inventory beginning January 1	Calf crop	Inshipments	Marketings	Farm slaughter	Deaths	Inventory January 1 following year
	1,000 head						
1982	228	71	*	56	2	11	230
1983	230	70	*	60	2	12	226
1984	226	73	*	65	1	12	221
1985	221	71	1	74	1	9	209
1986	209	64	*	67	1	10	195

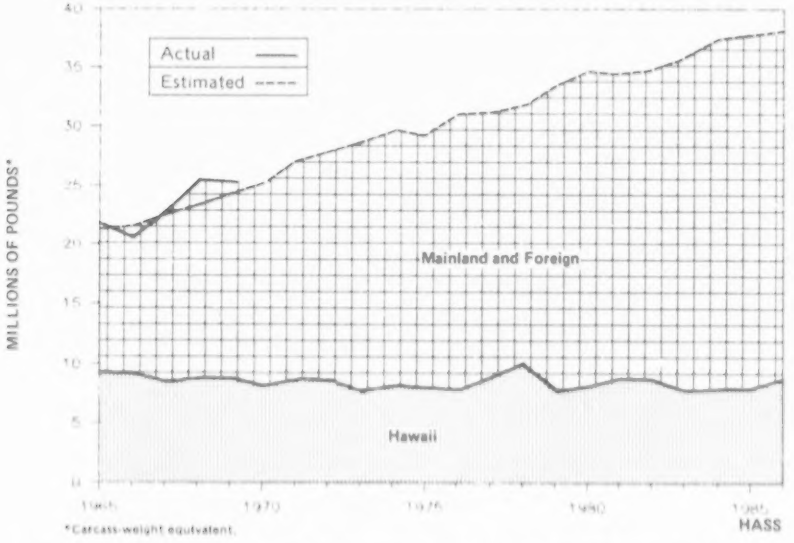
* = Less than 50.

MARKET SUPPLY: Beef and Veal, State of Hawaii, 1965-86



*Carcass-weight equivalent.

MARKET SUPPLY: Pork, State of Hawaii, 1965-86



*Carcass-weight equivalent.

MARKET SUPPLY: Beef and veal, pork, State of Hawaii, 1977-86

Year	Beef and veal				Pork			
	Mainland	Foreign	Hawaii [1]	Total [2]	Mainland	Foreign	Hawaii	Total [2]
	1,000 pounds (carcass weight equivalent)							
1977 . . .	44,645	17,493	32,325	94,463	22,399	2	8,762	31,163
1978 . . .	43,553	17,146	33,544	94,243	22,076	0	9,869	31,945
1979 . . .	47,453	16,030	29,325	92,808	25,796	45	7,785	33,626
1980 . . .	50,348	15,202	28,809	94,359	26,685	133	8,012	34,830
1981 . . .	49,622	16,504	28,666	94,792	25,827	97	8,708	34,632
1982 . . .	51,709	16,273	29,048	97,030	26,392	27	8,557	34,976
1983 . . .	53,259	14,555	31,985	99,799	27,505	802	7,693	36,000
1984 . . .	55,724	16,548	32,116	104,388	28,739	875	7,878	37,492
1985 . . .	55,893	15,263	33,928	105,084	28,333	1,735	7,859	37,927
1986 . . .	57,669	15,764	33,764	107,197	27,608	2,021	8,643	38,362

[1] Excludes slaughter cattle and calves shipped out-of-State.
[2] After 1971 total supply was estimated and mainland inshipments derived. See page 100 for detailed explanation of the estimating procedure.

MILK: Number of operations, number of milk cows, production, sales, price, and value, by islands, 1982-86

Year	Operations [1]		Annual average milk cows	Milk per cow	Production [2]	Sold [2]	Average price	Value of sales
	Total	10+ milk cows						
	Number			Pounds	Million pounds		Dollars per hundredweight	1,000 dollars
				STATE				
1982 . .	90	23	12,500	11,520	144.0	106.4	20.59	21,908
1983 . .	90	23	12,500	11,920	149.0	143.7	20.09	28,869
1984 . .	90	22	12,100	12,231	148.0	146.0	20.06	29,288
1985 . .	90	20	11,300	12,566	142.0	139.8	20.25	28,310
1986 . .	**90**	**20**	**11,500**	**13,565**	**156.0**	**153.1**	**19.99**	**30,605**
				HAWAII/KAUAI/MAUI [3]				
1982 . .	68	7	3,100	10,710	33.2	30.8	20.20	6,221
1983 . .	67	7	3,100	10,840	33.6	31.5	20.25	6,373
1984 . .	69	6	3,000	11,835	35.5	33.8	20.13	6,803
1985 . .	70	6	3,000	11,565	34.7	32.8	20.12	6,600
1986 . .	**70**	**6**	**3,100**	**12,645**	**39.2**	**36.6**	**19.80**	**7,247**
				OAHU				
1982 . .	22	16	9,400	11,785	110.8	75.6	20.75	15,687
1983 . .	23	16	9,400	12,275	115.4	112.2	20.05	22,496
1984 . .	21	16	9,100	12,365	112.5	112.2	20.04	22,485
1985 . .	20	14	8,300	12,930	107.3	107.0	20.29	21,710
1986 . .	**20**	**14**	**8,400**	**13,905**	**116.8**	**116.5**	**20.05**	**23,358**

[1] At end of year. Difference between "Total" and "10+" is operations having 1-9 milk cows.
[2] Difference between "Production" and "Sold" is milk used on farms for human consumption, fed to calves or other uses.
[3] Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

MILK-FEED RATIO, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1982 . .	1.81	1.78	1.62	1.73	1.77	1.72	1.66	1.72	1.79	1.79	1.82	1.70
1983 . .	1.74	1.77	1.76	1.69	1.64	1.52	1.52	1.56	1.66	1.67	1.64	1.57
1984 . .	1.57	1.63	1.59	1.52	1.61	1.62	1.50	1.50	1.76	1.81	1.72	1.71
1985 . .	1.76	1.75	1.77	1.72	1.73	1.68	1.77	1.80	1.90	1.90	1.84	1.89
1986 . .	**1.84**	**1.88**	NA	**1.82**	NA	NA	**1.78**	NA	NA	**2.02**	NA	NA

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.
[1] Pounds of 20-percent dairy feed equal in value to 1 pound of whole milk.

MILK: Number of cows, milk production, and price, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Average number of milk cows on hand during month -- 1,000 head												
1982	12.6	12.6	12.5	12.4	12.4	12.3	12.4	12.4	12.4	12.4	12.4	12.4	12.5
1983	12.5	12.5	12.5	12.5	12.6	12.6	12.6	12.4	12.4	12.5	12.4	12.4	12.5
1984	12.3	12.3	12.3	12.2	12.1	12.0	11.9	12.0	12.1	12.0	12.1	12.0	12.1
1985	11.8	11.7	11.6	11.4	11.1	11.1	11.1	11.1	11.0	11.0	11.2	11.3	11.3
1986	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.7	11.8	11.8	11.9	11.5
	Average monthly production per all cows in herd -- Pounds												
1982	975	905	1,015	1,015	1,040	975	985	950	910	960	910	935	11,520
1983	975	920	1,050	1,015	1,055	1,000	1,025	1,010	960	960	945	1,015	11,920
1984	1,050	990	1,075	1,065	1,115	1,050	1,060	1,035	925	935	940	985	12,231
1985	1,025	955	1,080	1,070	1,135	1,065	1,080	1,025	990	1,045	1,020	1,095	12,566
1986	1,150	1,080	1,210	1,200	1,230	1,165	1,165	1,095	1,015	1,060	1,040	1,120	13,565
	Milk production -- Million pounds												
1982	12.3	11.4	12.7	12.6	12.9	12.0	12.2	11.8	11.3	11.9	11.3	11.6	144
1983	12.2	11.5	13.1	12.7	13.3	12.6	12.9	12.5	11.9	12.0	11.7	12.6	149
1984	12.9	12.2	13.2	13.0	13.5	12.6	12.6	12.4	11.2	11.2	11.4	11.8	148
1985	12.1	11.2	12.5	12.2	12.6	11.8	12.0	11.4	10.9	11.5	11.4	12.4	142
1986	13.1	12.3	13.8	13.7	14.0	13.3	13.3	12.5	11.9	12.5	12.3	13.3	156
	Average price for milk sold to plants -- Dollars per hundredweight												
1982	20.87	20.90	19.04	20.32	20.78	20.63	20.36	20.59	20.99	21.00	20.97	20.45	20.59
1983	20.92	20.75	20.67	20.26	20.10	18.66	18.57	19.05	20.69	20.88	20.86	19.96	20.09
1984	20.83	20.78	20.27	19.80	19.58	19.79	19.41	18.78	20.67	20.79	20.16	20.05	20.06
1985	20.26	20.32	20.30	20.23	19.95	18.89	19.89	20.27	20.90	20.86	20.74	20.29	20.25
1986	20.25	20.22	20.19	19.61	19.75	18.75	19.17	20.12	20.71	20.74	20.67	19.91	19.99

HONEY: Number of operations, colonies, honey and beeswax production, price, and value, State of Hawaii, 1982-86

Year	Operations	Number of colonies	Yield per colony (honey)	Production		Average price [1]		Value of production	
				Honey (extracted)	Beeswax	Honey (extracted)	Beeswax	Honey	Beeswax
	Number	Thousands	Pounds	1,000 pounds		Cents per pound		1,000 dollars	
1982	30	8	115	920	14	56.5	210.0	520	29
1983	27	9	145	1,305	21	58.1	230.0	758	48
1984	25	7	121	1,089	17	56.1	195.0	611	33
1985	22	9	132	1,188	18	62.9	190.0	747	34
1986	20	9	147	1,323	18	75.0	185.0	992	33

[1] Average of unprocessed bulk and processed packaged honey sold at wholesale and processed packaged honey sold at retail by farmers.

HOGS AND PIGS: December 1 inventory by classes and weight, by islands, 1982-86

Year	All hogs and pigs	Breeding	Market				
			Total	Under 60 lbs.	60-119 lbs.	120-179 lbs.	180 lbs. and over
	1,000 head						
				STATE [1]			
1982	49	7	42	19	12	8	3
1983	48	7	41	19	11	8	3
1984	47	7	40	18	11	8	3
1985	55	9	46	21	13	9	3
1986	50	8	42	19	11	8	4
				HAWAII			
1982	3.8	.6	3.2	1.7	.9	.5	.1
1983	3.2	.5	2.7	1.2	1.0	.4	.1
1984	3.4	.6	2.8	1.6	.5	.5	.2
1985	4.8	.8	4.0	2.0	1.1	.8	.1
1986	4.9	.8	4.1	1.9	1.0	.9	.3
				KAUAI			
1982	4.3	.7	3.6	1.8	1.2	.5	.1
1983	3.5	.6	2.9	1.6	.9	.3	.1
1984	3.9	.7	3.2	1.6	.7	.8	.1
1985	5.4	.9	4.5	2.0	1.3	.9	.3
1986	4.8	.8	4.0	1.7	1.4	.7	.2
				MAUI			
1982	8.2	1.2	7.0	3.1	2.0	1.4	.5
1983	8.7	1.3	7.4	3.3	2.2	1.4	.5
1984	7.5	1.1	6.4	2.6	1.8	1.4	.6
1985	10.2	1.6	8.6	3.8	2.3	1.6	.9
1986	9.2	1.1	8.1	3.8	2.0	1.5	.8
				MOLOKAI/LANAI			
1982	.6	.1	.5	.2	.2	.1	*
1983	.9	.2	.7	.5	.1	.1	*
1984	.7	.1	.6	.2	.2	.1	.1
1985	1.0	.2	.8	.4	.2	.1	.1
1986	.7	.1	.6	.3	.2	*	.1
				OAHU			
1982	32.1	4.5	27.6	12.6	7.8	5.3	1.9
1983	31.7	4.4	27.3	12.3	7.2	5.7	2.1
1984	31.5	4.5	27.0	12.0	7.4	5.2	2.4
1985	33.6	5.2	28.4	12.9	8.2	5.5	1.8
1986	30.4	4.8	25.6	11.6	6.6	4.9	2.5

* = Less than 500.

[1] State totals may not add due to rounding.

HOGS: Number of operations, pig crop, number and pounds sold, price, and value, by islands, 1982-86

Year	Number of operations [1]		Pig crop [2]		Number sold [3]	Pounds sold (live weight) [4]	Farm price (live weight)	Value of sales
	Total	10+	December-May	June-November				
	Number		1,000 head			1,000 pounds	Dollars per hundredweight	1,000 dollars
				STATE [5]				
1982	650	410	35	36	67	11,409	74.20	8,465
1983	650	420	32	35	59	10,257	75.80	7,775
1984	650	420	31	35	60	10,504	77.00	8,088
1985	650	430	35	41	60	10,478	76.30	7,995
1986	600	410	32	36	65	11,524	76.10	8,770
				HAWAII				
1982	75	60	2.6	2.8	5.4	954	79.50	758
1983	85	50	2.7	2.8	5.4	975	80.50	785
1984	85	55	2.4	2.9	4.7	868	84.00	729
1985	85	60	3.0	3.6	4.7	933	81.50	760
1986	80	60	3.0	3.2	5.3	997	78.00	778
				KAUAI				
1982	115	60	2.9	2.8	5.3	848	80.50	683
1983	120	50	2.3	2.8	4.9	763	83.00	633
1984	125	55	2.6	3.0	4.7	791	84.50	668
1985	120	55	3.1	4.0	5.0	919	82.50	758
1986	110	50	3.1	3.6	6.7	1,320	81.00	1,069
				MAUI/MOLOKAI				
1982	100	65	7.8	7.1	15.3	2,688	78.50	2,110
1983	115	85	7.3	8.2	13.4	2,402	80.00	1,922
1984	105	70	6.0	6.9	13.3	2,425	80.00	1,940
1985	110	75	8.3	9.8	13.7	2,404	80.50	1,935
1986	100	70	6.5	7.1	13.4	2,398	80.00	1,918
				OAHU				
1982	360	225	21.7	23.3	41.4	6,919	71.00	4,914
1983	330	235	19.7	21.2	35.4	6,117	72.50	4,435
1984	335	240	19.9	22.3	37.5	6,420	74.00	4,751
1985	335	240	21.0	23.2	36.6	6,222	73.00	4,542
1986	310	230	19.4	22.1	39.4	6,809	73.50	5,005

[1] Difference between "Total" and "10+" is operations having 1-9 hogs; current year number of operations is preliminary.
[2] Number of pigs born during the 6-month period which were still on hand or were sold.
[3] Excludes interfarm sales; includes custom slaughter for home use; includes direct sales on farms to consumers.
[4] Excludes custom slaughter for use on farms where produced and interfarm sales.
[5] State totals may not add for number of operations and pig crop due to rounding. Sales and value data are for the 12-month period, December of the previous year through November of the following year.

HOGS: Commercial slaughter and farm price, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Number of head – 1,000 head [1] [2]												
1982	3.2	3.2	3.6	3.8	3.5	3.7	3.8	3.6	3.3	3.4	3.3	4.6	43.0
1983	3.2	3.3	3.6	3.5	3.6	3.7	3.7	3.8	3.6	3.5	3.5	4.9	44.0
1984	3.4	3.3	3.6	3.6	3.6	3.7	3.7	3.7	3.3	3.7	3.8	4.7	44.1
1985	3.3	3.4	3.5	3.8	3.7	3.5	3.7	3.8	3.4	3.5	3.5	4.6	43.7
1986	3.5	3.3	3.5	3.6	3.7	3.4	3.6	3.9	3.7	3.9	3.5	5.1	44.7
	Pounds slaughtered – 1,000 pounds, dressed weight [1] [3]												
1982	463	456	521	530	490	512	516	482	442	456	477	687	6,032
1983	481	471	495	501	516	501	515	503	497	497	476	672	6,125
1984	484	462	505	514	524	524	518	495	442	552	534	676	6,230
1985	470	491	514	533	560	479	509	538	466	500	534	663	6,257
1986	501	471	497	513	547	503	546	530	550	601	523	760	6,542
	Farm price – Cents per pound, dressed weight [4]												
1982	97.0	97.5	97.5	98.0	96.5	99.0	99.0	99.5	100.5	102.0	101.0	101.0	99.0
1983	102.0	101.5	100.0	99.5	101.5	100.5	101.5	99.5	101.5	102.0	103.5	102.5	101.0
1984	99.5	104.5	101.5	102.5	103.0	101.5	102.5	102.5	104.0	105.0	102.5	101.5	102.5
1985	102.5	102.5	102.5	102.5	99.5	102.5	101.0	101.0	101.5	102.0	102.0	102.0	101.5
1986	102.0	102.0	101.5	102.5	101.0	100.0	101.5	101.5	101.5	102.0	100.5		101.5

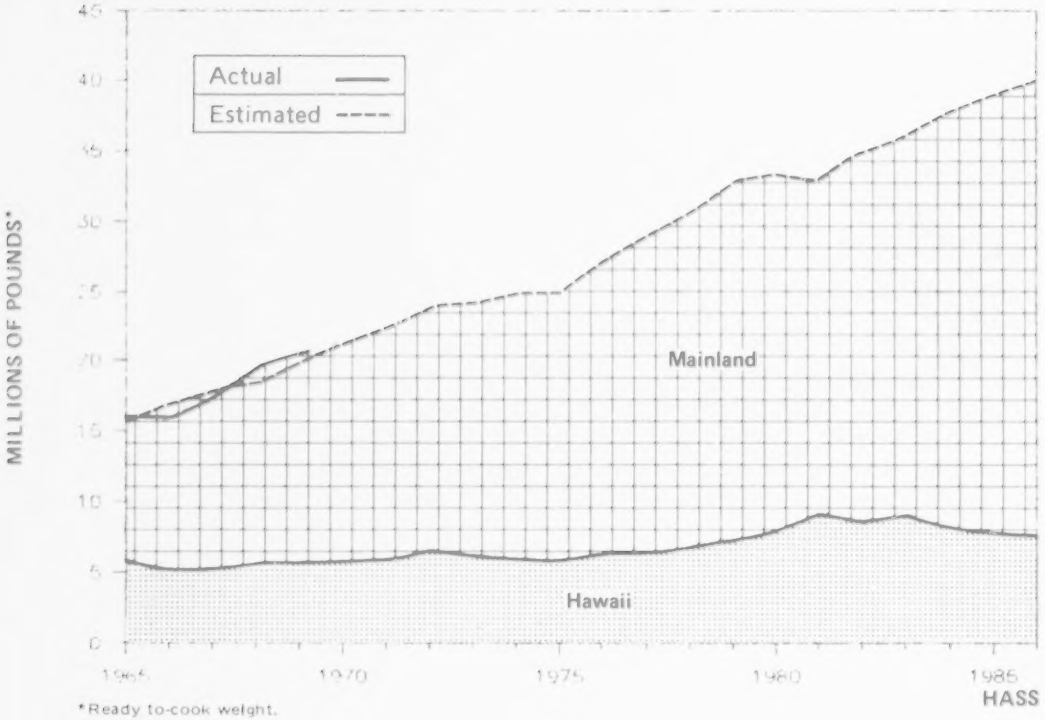
[1] Excludes non-inspected farm slaughter; includes custom slaughter and live hog inshipments from the mainland for slaughter.
[2] Sum of monthly estimates may not add to annual total due to rounding.
[3] To convert dressed weight to live weight: Divide by 0.75 or multiply by a factor of 1.3333.
[4] Annual average price is for marketing year December-November.

HOGS AND PIGS: Inventory and disposition, State of Hawaii, 1982-86

Year	Inventory December 1 previous year	Annual pig crop	Inshipments	Marketings	Farm slaughter	Deaths	Inventory December 1
	1,000 head						
1982	55	71	*	67	4	6	49
1983	49	67	*	59	3	6	48
1984	48	66	*	60	3	4	47
1985	47	76	*	60	3	5	55
1986	55	68	*	65	3	5	50

* = Less than 500 head.

MARKET SUPPLY: Chickens and Broilers, State of Hawaii, 1965-86



*Ready to-cook weight.

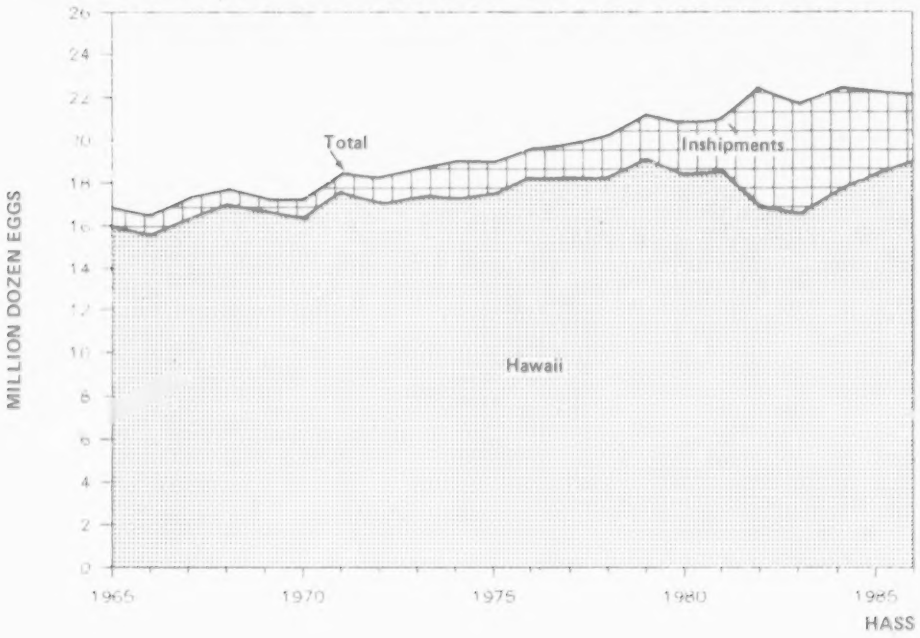
MARKET SUPPLY: Poultry meat, State of Hawaii, 1977-86

Commodity	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
	1,000 pounds (ready-to-cook weight)									
Broilers:										
Inshipments	22,643	23,682	25,795	25,455	23,850	26,357	26,932	29,785	31,305	32,353
Hawaii	5,180	5,816	5,896	6,569	7,673	7,534	8,023	7,346	6,723	6,692
Total	27,823	29,498	31,691	32,024	31,523	33,891	34,955	37,131	38,028	39,045
Other chickens:										
Hawaii	978	970	1,240	1,321	1,373	1,037	924	756	983	937
Total chickens:										
Inshipments	22,643	23,682	25,795	25,455	23,850	26,357	26,932	29,785	31,305	32,353
Hawaii	6,158	6,786	7,136	7,890	9,046	8,571	8,947	8,102	7,706	7,629
Total [1]	28,801	30,468	32,931	33,345	32,896	34,928	35,879	37,887	39,011	39,982
Turkeys:										
Inshipments	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

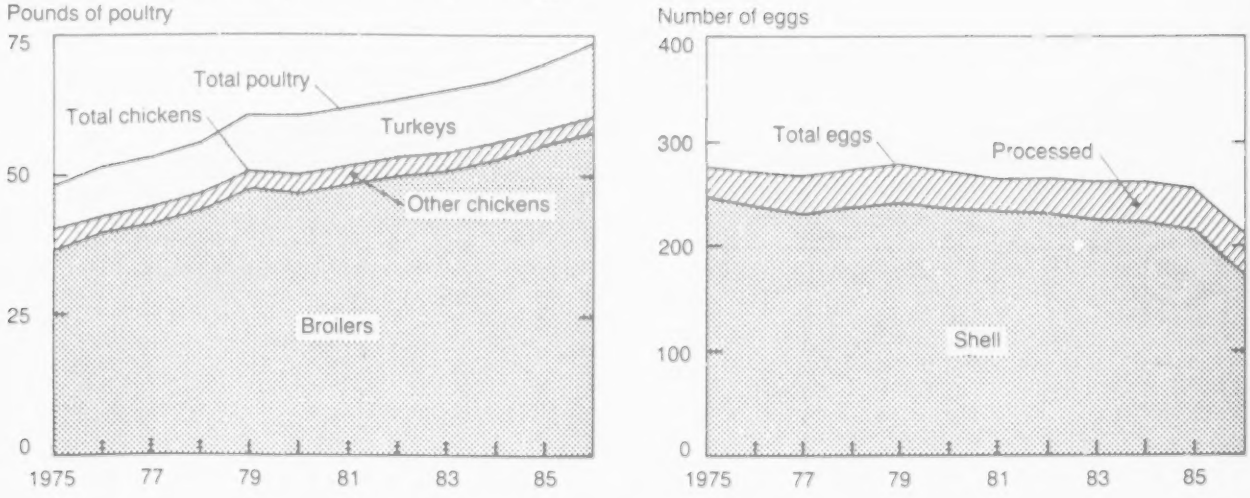
NA = Not available.

[1] Beginning 1970 total supply was estimated and mainland inshipments derived. See page 100 for detailed explanation of the estimating procedure.

MARKET SUPPLY: Eggs, State of Hawaii, 1965-86



U. S. Per Capita Consumption of Poultry and Eggs



Poultry is ready-to-cook weight. Eggs are shell eggs plus shell-egg equivalent of egg products.

USDA

MARKET SUPPLY: Eggs, State of Hawaii, 1982-86

Commodity	1982	1983	1984	1985	1986
	1,000 dozens				
Eggs, shell:					
Inshipments	5,400	5,158	4,810	3,842	3,066
Hawaii	16,850	16,442	17,475	18,375	18,917
Total	22,250	21,600	22,285	22,217	21,983

Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

CHICKENS: December 1 inventory by class, by islands, 1982-86

Year	All chickens (excluding broilers)	Number of layers			Non-laying pullets		Other chickens (excluding broilers)
		Hens 1 year +	Pullets under 1 year	Total	Over 3 months	Under 3 months	
	Thousands						
				STATE			
1982	1,148	589	260	849	115	184	*
1983	1,140	577	352	929	106	105	*
1984	1,195	559	385	944	128	123	*
1985	1,210	609	391	1,000	92	118	*
1986	1,185	609	364	973	107	105	*
				HAWAII/KAUAI/MAUI/MOLOKAI [1]			
1982	177	83	68	151	12	14	*
1983	179	81	69	150	15	14	*
1984	172	73	83	156	5	11	*
1985	168	80	71	151	6	11	*
1986	206	80	112	192	9	5	*
				OAHU			
1982	971	506	192	698	103	170	*
1983	961	496	283	779	91	91	*
1984	1,023	486	302	788	123	112	*
1985	1,042	529	320	849	86	107	*
1986	979	529	252	781	98	100	*

* = Less than 500.

[1] Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

EGG-TYPE PULLET CHICK PLACEMENTS, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 chicks												
1982	85	17	83	14	40	92	16	74	54	52	94	20	641
1983	68	25	97	31	17	100	40	74	23	55	27	36	593
1984	80	24	78	10	40	79	29	86	4	79	53	42	604
1985	71	25	101	8	112	15	33	72	4	117	0	23	581
1986	73	7	107	31	36	32	*	130	25	87	34	37	599

* = Less than 500.

[1] Inshipments plus local hatch.

CHICKENS: December 1 number of operations, sales, price, and value, by islands, 1982-86 [1]

Year	Operations	Number sold	Pounds sold (live weight) [2]	Average price (live weight) [3]	Value of sales
	Number	Thousands	1,000 pounds	Cents per pound	1,000 dollars
			STATE		
1982	55	436	1,482	11.3	167
1983	55	377	1,320	13.6	180
1984	55	300	1,080	18.0	194
1985	55	390	1,404	16.7	234
1986	**55**	**362**	**1,339**	**14.4**	**193**
			HAWAII/KAUAI/MAUI/MOLOKAI [4]		
1982	34	66	232	35.5	82
1983	36	72	243	33.7	82
1984	35	61	214	37.4	80
1985	35	66	239	36.5	87
1986	**36**	**65**	**238**	**34.5**	**82**
			OAHU		
1982	21	370	1,250	6.8	85
1983	19	305	1,077	9.1	98
1984	20	239	866	13.2	114
1985	20	324	1,165	12.6	147
1986	**19**	**297**	**1,101**	**10.1**	**111**

[1] Data are for December-November marketing year.
[2] To convert live weight to ready-to-cook weight, multiply by a conversion factor of .70.
[3] Equivalent delivered processing plant.
[4] Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

CHICKENS: Slaughter and price, State of Hawaii, 1982-86 [1]

Month	Number sold					Pounds sold (live weight) [2]					Average farm price (live weight) [3]				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	1,000 birds					1,000 pounds					Cents per pound				
December	28	33	37	21	24	93	110	133	72	87	14.0	11.5	12.0	20.0	13.5
January	39	20	25	27	41	137	74	94	103	153	9.0	14.0	18.0	17.0	12.5
February	46	55	23	36	23	144	192	81	127	89	9.0	13.5	17.0	17.0	14.0
March	37	36	8	34	14	131	125	27	124	51	12.0	11.5	24.5	18.0	23.0
April	33	32	20	41	33	128	104	74	148	125	14.0	12.5	21.5	15.5	15.0
May	19	34	21	26	30	62	119	76	97	113	20.5	14.5	22.0	19.5	13.5
June	38	44	43	40	133	160	55	154	144	13.5	14.5	23.0	17.0	14.5
July	50	37	17	40	42	176	133	62	145	154	9.5	14.5	22.0	15.0	13.5
August	31	28	32	31	29	100	101	111	110	103	11.5	13.0	18.5	17.5	16.0
September	59	25	35	31	36	190	87	123	107	134	10.0	14.5	17.0	17.0	13.5
October	16	15	38	22	22	58	53	139	77	80	12.0	14.5	16.0	16.0	11.5
November	40	18	29	38	28	130	62	105	140	106	9.0	16.5	16.5	14.0	17.0
Total or average	436	377	300	390	362	1,482	1,320	1,080	404	1,339	11.3	13.6	18.0	16.7	14.4

[1] Data are for December-November marketing year.
[2] To convert live weight to ready-to-cook weight, multiply by a conversion factor of .70.
[3] Equivalent delivered processing plant.

EGGS: December 1 number of operations, number of layers, production, sales, price, and value, by islands, 1982-86 [1]

Year	Operations with layers		Average number of layers	Average production per layer	Production [3]	Average price [4]	Value of sales
	Total [2]	100+					
	Number		1,000 birds	Eggs	Million eggs	Cents per dozen	1,000 dollars
				STATE [5]			
1982	55	21	914	221	202.2	86.3	14,542
1983	55	19	855	231	197.3	85.4	14,041
1984	55	21	939	223	209.7	88.9	15,535
1985	55	20	983	224	220.5	76.3	14,020
1986	55	21	987	230	227.0	71.1	13,450
				HAWAII/KAUAI/MAUI/MOLOKAI [6]			
1982	34	7	135	208	28.1	101.5	2,382
1983	36	8	143	225	32.2	98.0	2,629
1984	35	8	143	224	32.0	102.0	2,726
1985	35	7	145	235	34.1	89.5	2,543
1986	36	9	154	242	37.3	78.0	2,428
				OAHU			
1982	21	14	779	223	174.1	84.0	12,160
1983	19	11	712	232	165.1	83.0	11,412
1984	20	13	796	223	177.7	86.5	12,809
1985	20	13	838	222	186.4	74.0	11,477
1986	19	12	833	228	189.7	69.5	11,022

[1] Annual number of layers, egg production, sales, price, and value are a December-November marketing year.
[2] Difference between "Total" and "100+" is operations having 1-99 layers.
[3] Home consumption less than 0.5 million eggs included.
[4] Equivalent delivered processing plant.
[5] Sum of island estimates may not add to State total due to rounding.
[6] Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

EGGS: Number of layers, production, and price, State of Hawaii, 1982-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average [1]
	Average number of layers on hand during month -- 1,000 layers												
1982 . . .	924	918	918	932	935	926	915	912	902	889	868	838	914
1983 . . .	839	843	841	854	860	861	858	860	856	855	898	915	855
1984 . . .	908	920	928	944	950	949	958	970	961	934	933	958	939
1985 . . .	980	975	961	972	987	991	983	983	993	1,003	1,005	1,007	983
1986 . . .	1,011	999	1,008	1,010	986	972	948	952	979	990	984		987
	Egg production -- Million eggs [2]												
1982 . . .	18.0	16.2	17.1	16.7	18.0	17.1	16.7	16.4	16.2	16.7	15.4	15.5	202.2
1983 . . .	15.8	14.9	17.4	16.6	16.9	16.3	16.8	17.0	16.5	16.9	16.7	17.6	197.3
1984 . . .	17.4	16.4	18.0	17.4	18.2	18.1	18.7	18.2	16.8	16.5	16.4	18.5	209.7
1985 . . .	18.8	16.5	18.0	17.7	18.8	18.3	18.9	19.0	18.5	19.0	18.5	19.0	220.5
1986 . . .	19.3	17.9	19.9	19.7	19.5	18.3	18.9	18.7	18.3	19.2	18.3		227.0
	Average farm price -- Cents per dozen [3]												
1982 . . .	84.0	86.5	86.5	86.5	86.5	87.0	89.0	87.5	87.0	84.5	87.5	89.5	86.3
1983 . . .	88.0	87.0	87.0	87.0	86.0	84.5	85.0	84.0	83.5	83.0	81.0	81.0	85.4
1984 . . .	90.0	91.0	91.5	96.5	96.0	91.5	89.5	89.5	84.0	82.0	83.0	87.0	88.9
1985 . . .	89.0	86.0	87.5	85.0	79.5	74.0	69.5	70.5	65.0	62.0	62.5	62.5	76.3
1986 . . .	71.0	70.5	72.5	73.5	73.0	71.5	72.5	72.0	71.0	72.0	71.0		71.1

[1] Annual data are for a December-November marketing year.
[2] Annual totals may not add due to rounding.
[3] Equivalent delivered processing plant.

EGG-FEED RATIO, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1982 . .	7.0	6.9	6.9	6.9	7.1	7.2	7.4	7.4	7.6	7.3	7.8	7.5
1983 . .	7.7	7.6	7.6	7.3	7.2	7.0	7.1	6.7	6.6	6.5	6.1	6.8
1984 . .	6.1	7.1	7.1	7.2	7.6	7.5	7.0	7.0	7.0	6.9	6.8	6.9
1985 . .	7.4	7.2	7.3	7.1	6.6	6.4	6.0	6.1	5.7	5.5	5.6	5.6
1986 . .	6.3	6.3	NA	6.5	NA	NA	6.6	NA	NA	6.7	NA	NA

[1] Number of pounds of laying feed, equivalent in value to 1 dozen eggs.

BROILER-TYPE CHICK PLACEMENTS, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 chicks												
1982 . . .	219	335	264	245	240	251	268	216	272	271	244	299	3,124
1983 . . .	214	241	247	253	236	263	324	227	216	219	273	271	2,984
1984 . . .	206	245	213	250	304	230	217	236	206	261	215	217	2,800
1985 . . .	255	191	194	198	224	201	219	187	180	231	205	217	2,502
1986 . . .	213	199	185	198	196	183	219	184	193	215	217	232	2,434

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.
[1] Inshipments plus local hatch.

BROILERS: December 1 number of operations, sales, price, and value, State of Hawaii, 1982-86 [1]

Year	Operations	Number sold [2]	Pounds sold (live weight) [2 3]	Average price (live weight) [4]	Value of sales [2]
	Number	Thousands	1,000 pounds	Cents per pound	1,000 dollars
1982	10	3,044	10,045	50.5	5,073
1983	9	2,891	10,697	50.0	5,349
1984	8	2,647	9,794	51.0	4,995
1985	7	2,359	8,964	52.0	4,661
1986	8	2,288	8,923	51.0	4,551

[1] Data are for December-November marketing year.
[2] Includes home consumption which is less than 1 percent of production.
[3] To convert live weight to ready-to-cook weight, multiply by a conversion factor of .75.
[4] Equivalent delivered processing plant.

BROILERS: Slaughter and price, State of Hawaii, 1982-86 [1]

Month	Number sold [2]					Pounds sold (live weight) [2 3]					Average farm price (live weight) [4]				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
	1,000 birds					1,000 pounds					Cents per pound				
December	274	251	202	252	216	906	922	719	947	837	50.5	51.0	50.5	51.0	51.0
January	252	238	258	181	202	903	869	966	634	785	50.0	51.0	51.0	50.0	51.0
February	270	226	211	182	186	831	840	822	695	738	50.5	50.5	51.0	51.0	50.0
March	284	220	240	196	189	883	756	906	752	768	50.5	50.5	51.0	53.0	51.0
April	268	208	226	171	202	834	780	797	680	825	50.0	50.5	51.0	53.5	51.0
May	232	235	247	219	183	816	819	837	899	751	51.5	50.5	51.5	54.5	51.5
June	269	355	206	218	199	886	1,427	744	864	813	51.0	51.0	51.5	53.5	51.5
July	227	222	219	207	195	752	822	828	774	754	50.0	50.0	51.5	50.5	50.0
August	235	250	247	203	181	786	903	919	730	633	51.0	51.0	51.0	51.5	51.5
September	258	229	178	176	170	854	844	679	651	619	50.5	50.0	51.0	51.0	51.0
October	256	234	205	192	190	849	860	[5]750	701	706	50.0	51.0	50.5	51.5	50.0
November	219	223	208	162	175	745	855	827	637	694	50.0	42.5	50.5	52.0	51.0
Total or average	3,044	2,891	2,647	2,359	2,288	10,045	10,697	9,794	8,964	8,923	50.5	50.0	51.0	52.0	51.0

[1] Data are for December-November marketing year.
[2] Includes home consumption which is less than 1 percent of production.
[3] To convert live weight to ready-to-cook weight, multiply by a conversion factor of .75.
[4] Equivalent delivered processing plant.
[5] Revised.

BROILER-FEED RATIO, State of Hawaii, 1982-86 [1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1982	3.4	3.2	3.2	3.2	3.3	3.3	3.3	3.5	3.4	3.3	3.5	3.6
1983	3.5	3.5	3.4	3.3	3.3	3.3	3.3	3.2	3.0	3.0	2.5	3.1
1984	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.4	3.5	3.6	3.6	3.6
1985	3.6	3.6	3.8	3.8	3.9	3.9	3.7	3.8	3.7	3.8	3.9	3.8
1986	3.8	3.7	NA	3.8	NA	NA	3.7	NA	NA	3.9	NA	NA

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.
[1] Number of pounds of broiler grower equal in value to 1 pound of broiler live weight.

SEED CORN: Number of farms, acreage used for crop, acreage harvested, outshipments, and value, State of Hawaii, 1982-86

Crop year November-June	Farms	Acreage used for crop	Acreage harvested			Outshipments of seed	Value
			Nursery	Observation	Seed increase		
	Number	Acres				1,000 pounds	1,000 dollars
1982-83	5	630	275	165	190	240	3,000
1983-84	6	730	340	90	300	560	4,170
1984-85	7	870	395	145	330	500	5,150
1985-86	7	840	430	160	250	620	5,170
1986-87	7	780	430	130	220	580	5,440

FEED CROPS: Acreage, production, sales, and value, State of Hawaii, 1982-86 [1]

Year	Acreage harvested	Production	
		Quantity	Value [2]
	Acres	1,000 tons	1,000 dollars
1982	8,705	35.4	1,376
1983	9,347	45.7	2,107
1984	8,993	20.9	912
1985	5,542	30.6	3,028
1986	2,317	16.0	1,155

[1] Includes grains, grass and legume crops, and pineapple green chop.
[2] Includes value of production used on farm where produced.

FEED PRICES: Average price paid by farmers for feed, State of Hawaii, 1982-86

Kind of feed	Unit	1982	1983	1984	1985	1986
		Dollars				
Chick starter	Ton	262	279	280	248	240
Broiler grower	Ton	302	312	308	276	267
Laying feed	Ton	239	244	253	233	222
Dairy feed, 20-percent protein	Ton	236	245	247	226	214
Rolled barley	Ton	194	196	202	175	148
Rolled corn	Ton	195	217	220	196	184
Alfalfa pellets	Ton	181	190	187	184	181
Pineapple bran	Ton	141	140	145	143	127
Cottonseed meal, 41-percent protein	Hundredweight	16.20	17.60	17.50	16.50	16.00
Hog feed, 14-18 percent protein	Hundredweight	13.80	15.80	15.70	15.30	NA
Beef cattle feed, 10-20 percent protein	Hundredweight	13.30	14.50	15.50	14.00	NA
Stock salt	Hundredweight	7.60	8.20	8.30	8.80	NA

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.

FEED PRICES: Average price paid by farmers for feed, State of Hawaii, 1984-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Dollars per ton											
	CHICK STARTER											
1984 . .	295	290	290	295	290	290	290	285	270	255	255	255
1985 . .	255	255	255	255	255	245	245	245	245	240	240	240
1986 . .	240	240	NA	240	NA	NA	245	NA	NA	235	NA	NA
	BROILER GROWER											
1984 . .	335	320	320	320	320	320	320	305	295	285	280	280
1985 . .	280	280	280	280	280	275	275	275	275	270	270	270
1986 . .	270	270	NA	270	NA	NA	270	NA	NA	255	NA	NA
	LAYING FEED											
1984 . .	265	255	255	255	255	255	260	255	255	245	240	240
1985 . .	240	240	240	240	240	230	230	230	230	225	225	225
1986 . .	225	225	NA	225	NA	NA	220	NA	NA	215	NA	NA
	DAIRY FEED, 20-PERCENT PROTEIN											
1984 . .	265	255	255	260	245	245	250	250	235	230	235	235
1985 . .	230	235	230	235	230	225	225	225	220	220	225	215
1986 . .	220	215	NA	215	NA	NA	215	NA	NA	205	NA	NA
	ROLLED BARLEY											
1984 . .	208	208	215	205	217	214	204	200	189	185	185	190
1985 . .	183	182	182	182	181	173	173	173	173	167	166	163
1986 . .	163	159	NA	158	NA	NA	135	NA	NA	126	NA	NA
	ROLLED CORN											
1984 . .	219	219	225	220	225	228	229	228	226	210	210	200
1985 . .	201	201	201	201	201	198	197	197	196	188	185	187
1986 . .	188	188	NA	187	NA	NA	185	NA	NA	174	NA	NA
	ALFALFA PELLETS											
1984 . .	182	181	182	186	184	188	192	189	189	185	195	190
1985 . .	190	190	190	180	180	180	184	178	182	185	185	178
1986 . .	178	181	NA	191	NA	NA	178	NA	NA	177	NA	NA
	PINEAPPLE BRAN											
1984 . .	140	140	140	140	147	147	147	147	147	147	147	147
1985 . .	147	147	147	147	147	140	140	140	140	140	140	140
1986 . .	140	140	NA	119	NA	NA	119	NA	NA	119	NA	NA
	COTTONSEED MEAL, 41-PERCENT PROTEIN -- 100 pounds											
1984 . .	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00
1985 . .	17.00	17.00	17.00	17.00	17.00	16.50	16.50	16.50	16.00	16.00	16.00	16.00
1986 . .	16.00	16.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not available.

FEED: Inshipments from all sources, State of Hawaii, 1982-86

Commodity	1982	1983	1984	1985	1986
			Tons		
Feed Grains					
Barley	4,008	[1]37,701	[1]50,781	[1]41,524	[1]42,292
Corn	62,109	37,772	35,125	32,459	24,175
Mixed	[2]	37	66	232	291
Oats	186	1,342	759	663	276
Sorghum	168	211	214	213	242
Wheat	1,073	12,734	1,501	3,300	1,106
Total	67,544	89,797	88,446	78,391	68,382
Mixed Feeds					
Calf	317	371	411	598	641
Cattle	3,450	3,196	5,381	3,346	1,617
Dairy	10,270	10,305	5,380	3,032	2,830
Horse	1,018	1,245	1,686	2,452	1,726
Pigeon	496	516	604	673	159
Poultry (including scratch)	6,084	5,613	5,178	5,364	4,335
Rabbit	18	18	30	34	38
Swine	3,223	3,266	3,096	2,860	3,158
Other mixed	115	9	35	94	23
Total	24,991	24,539	21,801	18,453	14,527
Alfalfa Products					
Cubes, pellets, and hay	26,056	30,192	[1]32,279	[1]24,087	19,495
Protein Feeds					
Copra products [3]	1,595	1,969	1,376	972	[3]257
Cottonseed products	12,778	[1]9,355	[1]9,099	[1]8,316	[1]8,180
Cottonseed, whole	5,472	6,009	[1]6,946	5,496	[1]6,923
Meat and bone meal	[1]1,713	[1]1,399	1,351	1,353	861
Rape seed products	0	0	[3]511	0	0
Soybean meal	8,181	[1]7,792	10,281	12,320	8,700
Other protein	167	0	0	[1]169	458
Total	29,906	26,524	29,564	28,626	25,379
Other Feedstuff					
Almond hulls and pellets	4,891	4,944	4,602	5,793	1,501
Beet pulp and pellets	1,980	2,677	301	1,742	3,265
Cassava (Tapioca) pellets	0	0	0	[3]4,629	0
Corn gluten	0	0	0	618	2,645
Cottonseed hulls and pellets	2,808	1,560	[1]1,334	427	830
Grain screenings and pellets	2,818	2,939	4,626	1,784	201
Grass forage	0	0	1,473	0	0
Rye grass screenings	0	0	749	240	0
Miscellaneous/unspecified	6,852	9,823	6,439	5,369	5,141
Total	19,349	21,943	19,524	21,602	13,583
Total Feed Inshipments	167,846	192,995	191,614	170,159	141,366

[1] Includes foreign.
[2] Previously included under Miscellaneous/unspecified.
[3] Foreign.
Source: Market News Service, Hawaii Department of Agriculture.

Prices paid by Hawaii farmers, selected items, annual average, State of Hawaii, 1982-86

Item	1982	1983	1984	1985	1986 [1]
			Dollars		
Building Materials:					
Framing lumber, 2" x 4", fir, standard and better, per 1,000 bd. ft.	530.00	584.00	609.00	590.00	
Boards, per 1,000 bd. ft.:					
Rough, for farm fences and construction	745.00	800.00	770.00	825.00	
Rough, redwood	1,080.00	1,160.00	1,090.00	1,000.00	
Dressed, 1", pine, S_4S, standard and better or No. 2 and better	725.00	780.00	850.00	900.00	
Roofing:					
Asphalt shingles, 3 in 1 mineral surface, approximately 240 lbs., per square	52.00	53.00	53.00	51.00	
Galvanized steel, 26 gauge, per 100 square feet	96.00	97.00	97.00	80.00	
Plywood, exterior glue, ½", C-D-X, per 4' x 8' sheet	14.50	15.40	15.00	14.50	
Concrete blocks, 8" x 8" x 16", per 100	127.00	126.00	136.00	127.00	
Portland cement, per 94 lbs. net, each	9.40	9.30	9.10	9.10	
Equipment and Supplies:					
Iron pipe, galvanized:					
1½" I. D., per foot	1.90	1.90	1.90	1.85	
1¼" I. D., per foot	1.59	1.59	1.60	1.55	
PVC pipe, per lin. foot:					
1", I. D.	.47	.47	.45	.40	
2", I. D.	.83	.84	.85	.82	
Barbed wire, galvanized, 12½-gauge, 4-point, per 80-rod spool	51.50	58.50	57.50	61.00	
Stock fence (woven wire), 6" stay wire spacing, 12½-gauge wire, 32" high, per 20-rod roll	125.00	126.00	126.00	127.00	
Steel post, line fence, each	4.95	4.50	4.50	4.55	
Polypropylene shade cloth, per square foot:					
73%, 10' width	.18	.18	.19	.19	
78%, 20' width	.21	.21	.23	.23	
Hand sprayer, pressure, 3-4 gallon capacity, each	42.00	47.00	45.00	43.00	
Knapsack, sprayer, pressure, stainless steel, 5 gallon, each	149.00	154.00	153.00	160.00	
Rope, polypropylene, ½", per 100 feet	21.00	20.00	17.60	17.60	
Nails, 8d, common, per pound	1.20	1.13	1.17	1.10	
Fertilizer Materials:					
Concentrated superphosphate, 44-46 percent P_2O_5, per ton	340.00	340.00	340.00	345.00	
Sulphate of ammonia, per ton	238.00	225.00	220.00	235.00	
Urea (45-46% N), per ton	330.00	335.00	325.00	350.00	
Mixed Fertilizers:					
18-46-0, per ton	395.00	395.00	395.00	400.00	

See footnotes at end of table.

Continued

Prices paid by Hawaii farmers, selected items, annual average, State of Hawaii, 1982-86 -- Continued

Item	1982	1983	1984	1985	1986[1]
	Dollars				
Petroleum Products, Motor Supplies and Services:					
Gasoline, per gallon (including Federal, State, and local taxes):					
Price, service station (unleaded)	1.56	1.51	1.51	1.53	
Price, bulk delivery (leaded, regular)	1.26	1.19	1.20	1.17	
Diesel fuel, per gallon	1.18	1.21	1.20	1.18	
Motor oil, per gallon:					
Regular (non-detergent)	3.55	4.05	3.95	3.90	
Heavy duty (detergent)	3.80	4.40	4.25	3.95	
All-weather (high detergent)	4.30	5.05	4.80	4.15	
Auto tires (tubeless):					
Radial, steel-belted, size P195/75R14, ER78-14, each	83.00	82.00	80.00	75.00	
Bias-belted, size E78-14, each	56.00	59.00	50.00	48.00	
Truck tires, each:					
7.00-15, 6-ply	76.00	81.00	75.00	70.00	
Storage batteries, auto and light commercial 12 volt, cranking performance rating (CPR) (BCI STD):					
CPR 220-310 amps	58.00	62.00	59.00	57.00	
CPR 315-500 amps	75.00	76.00	78.00	74.00	

[1] Survey discontinued beginning 1986.

FERTILIZER: Consumption by kind and primary nutrients, State of Hawaii, year ended June 30, 1982-86

Year	Mixtures	Direct application materials		Total	Primary nutrients		
		Primary nutrients	Secondary and micro-nutrients		N	Available P_2O_5	K_2O
	Tons						
1982 . .	100,797	54,627	1,015	156,439	22,086	11,010	24,134
1983 . .	97,360	40,114	869	138,343	18,698	12,651	19,557
1984 . .	83,544	44,108	696	128,348	16,026	10,318	17,042
1985 . .	94,659	56,309	987	151,955	19,830	11,182	20,179
1986 [1] .							

[1] Survey discontinued beginning 1986.

FERTILIZER: Consumption chemical nitrogen materials, State of Hawaii, year ended June 30, 1982-86

Year	Ammonia		Ammonium		Nitrogen solution	Sodium nitrate	Urea	Other	Secondary and micro-nutrients
	Anhydrous	Aqua	Nitrate	Sulfate					
	Tons								
1982 . .	0	382	0	785	18,279	0	4,035	1,952	1,015
1983 . .	0	1,401	0	776	11,086	3	3,685	104	869
1984 . .	20	623	1	482	11,128	2	2,723	142	696
1985 . .	0	757	1	463	12,624	0	2,353	7,943	987
1986 [1] .									

[1] Survey discontinued beginning 1986.

FERTILIZER: Consumption phosphate and potash materials, State of Hawaii, year ended June 30, 1982-86

Year	Phosphate					Potash		Natural organics
	Superphosphates		Phosphate rock [1]	Ammonium phosphates	Other	Chlorides 50% - 62%	Other	
	22% and under	Over 22%						
	Tons							
1982 . .	0	614	188	33	9,901	2,931	15,527	0
1983 . .	0	2,107	88	0	7,325	698	12,841	0
1984 . .	0	436	86	0	9,492	242	18,731	0
1985 . .	0	421	238	0	11,872	370	19,267	0
1986 [2] .								

[1] Includes colloidal phosphate.
[2] Survey discontinued beginning 1986.

AGRICULTURAL EMPLOYMENT: Workers on farms, State of Hawaii, annual averages, 1982-86 [1]

Year	Total farm employment			Hired workers by type of farm		
	Self employed farm operators	Unpaid family members	Hired workers	Sugar	Pineapple	Other
1982 . .	2,600	1,300	13,000	4,900	3,750	4,350
1983 . .	2,500	1,500	13,000	4,850	3,250	4,600
1984 . .	2,200	1,300	11,800	4,650	2,550	4,700
1985 . .	2,200	1,200	10,600	4,150	1,950	4,400
1986 . .	**2,050**	**1,200**	**9,700**	**3,975**	**2,025**	**3,675**

[1] Due to program changes annual averages are not comparable. Average for 1982 and 1983 is July only; 1984 July and October; and 1985 and 1986, average of January, April, July and October surveys.

AGRICULTURAL EMPLOYMENT: Total workers on farms, State of Hawaii, 1986 [1]

Island	Self employed farm operators				Unpaid workers [2]				Hired workers			
	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.
Hawaii.	1,300	1,050	1,500	1,500	750	650	800	950	3,450	2,300	3,250	3,350
Kauai.	150	100	150	150	50	50	50	50	1,350	1,200	1,200	1,250
Maui/Molokai/ Lanai.	200	150	250	250	100	50	100	100	2,400	2,700	3,550	2,550
Oahu	350	300	400	400	200	250	300	200	2,650	2,250	2,800	2,350
State [3]	2,000	1,600	2,300	2,300	1,100	1,000	1,250	1,300	9,900	8,450	10,850	9,500

[1] Estimates for week which includes 12th of each survey month. [2] Includes family members and others working 15 or more hours per week. [3] Sum of island estimates may not add to State total due to rounding.

AGRICULTURAL EMPLOYMENT: Hired workers by type of farm, State of Hawaii, 1986 [1]

Island	Sugar				Pineapple				Other			
	Jan.	Apr.	Jul	Oct.	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.
Hawaii.	1,150	1,150	1,350	1,100	--	--	--	--	2,300	1,150	1,900	2,250
Kauai.	1,150	1,100	1,100	1,100	--	--	--	--	200	100	100	150
Maui/Molokai/ Lanai.	1,100	1,100	1,100	1,100	700	1,200	1,800	900	600	400	650	550
Oahu	550	600	550	550	800	750	1,050	850	1,300	900	1,200	950
State [2]	4,000	3,950	4,100	3,850	1,500	1,950	2,900	1,750	4,400	2,550	3,850	3,900

-- = Negligible or not applicable. [1] Estimates for week which includes 12th of each survey month. [2] Sum of island estimates may not add to State total due to rounding.

AGRICULTURAL EMPLOYMENT: Wage rates by method of pay and type of work, State of Hawaii, 1986 [1]

Type of work performed	Hawaii				Annual average		
	Jan.	Apr.	Jul.	Oct.	Hawaii	California	U. S.
	Dollars/hour						
All hired farm workers.	7.47	7.22	7.37	7.41	7.38	5.64	4.70
Field and Livestock workers.	6.57	6.36	6.40	6.39	6.43	5.17	4.42
Supervisors	10.80	10.26	10.90	10.49	10.64	8.75	7.45
Others.	8.16	8.24	8.46	8.40	8.33	6.29	4.80

[1] Perquisites such as room and board, housing, etc., are provided some workers in all categories, except where footnoted otherwise, in addition to wage rates shown.

DEFINITION OF TERMS

AGRICULTURE entails all operations performed on a "farm" in connection with planting, growing, and harvesting of crops; raising and feeding of livestock and poultry, and management. All operations in connection with preparation of farm products for market where the preparation does not alter the form of the product and transportation to the first delivery point. In Hawaii, the first delivery point is defined as the processing plant or packinghouse door or other receivers' establishment for marketings on the island of production. For off-island marketings, the first delivery point is generally the shipper's warehouse.

FARM is a place with estimated (or expected) annual sales of agricultural products of at least $1,000.

CROP PRODUCTION is the estimated amount of crop harvested and transferred at the first delivery point. Production estimates of vegetables and fruits include the quantity for fresh market and processing use.

ACREAGE IN CROP is the total acreage standing in a specific crop regardless of age or condition unless it has been declared abandoned by the operator.

ACREAGE HARVESTED is the total area harvested or partially harvested during the reporting period. A permanent or semi-permanent planting that was harvested for only a portion of the year is counted in its entirety. Acreage lost before maturity due to natural or economic factors is not included. Acreage harvested and planted repeatedly during the year is counted each time.

YIELD is the average production per acre of merchantable quality harvested and sold or utilized. This is derived by dividing total production by harvested acres.

LIVESTOCK OPERATION is defined as a place that has one or more head of the species on hand at any time during the year. Does not have to meet the definition of a farm.

LIVESTOCK PRODUCTION is the estimated amount of livestock and livestock products sold. Includes allowance for amount used on farms where produced.

FARM PRICE is a computed price to value agricultural production which may or may not reflect the average price at which actual transfer of ownership took place but which is comparable with the definition of "agriculture". See "agriculture" for definition of pricing point.

MARKET SUPPLY includes pounds of product sold in Hawaii to both Armed Forces and civilians (outshipments excluded) plus products shipped in for civilian use. Direct inshipments to the Armed Forces are excluded.

SAMPLING METHODS AND ESTIMATION

The Hawaii Agricultural Statistics Service uses a variety of sampling techniques to produce current agricultural statistics about crops, livestock, prices, farm labor, and other information relating to the agricultural economy.

Data is collected, summarized and estimates are prepared. These estimates then pass through the Agricultural Statistics Board of the U. S. Department of Agriculture where, for major items, Hawaii estimates become part of National totals and enter the official data base for agriculture. National and State estimates are published according to a schedule set one year in advance.

The Hawaii Agricultural Statistics Service conducts many of its surveys by virtually complete **ENUMERATION** of certain parts of the population. This is unusual compared to procedures in other states but is feasible in Hawaii due to the relatively small size of certain categories of the farm universe or the extreme concentration of ownership. Vegetable and poultry surveys are among those where complete enumeration is the usual procedure.

LIST SAMPLING is a common means of data collection. Lists of farm operators are well suited for the low cost collection of information by mail. Supplementary information is included within the frame that allows the use of efficient stratified sample designs. A major disadvantage of this method is the constant change in the list frame which can never be perfect. In Hawaii, cattle and hog surveys are examples of stratified list sample designs.

AREA FRAME SAMPLING can be used alone or in conjunction with the list frame. The frame consists of an aggregation of identifiable units of land or segments which may be sampled. The frame is complete and does not suffer the type of deterioration over time as does a list frame.

MULTIPLE-FRAME SAMPLING is the use of two frames. It takes advantage of the best attributes of the area frame and the list frame, produces unbiased estimates and allows measurement of the sampling error. This survey method is currently used for agricultural employment and wage rate surveys.

OBJECTIVE YIELD SURVEYS provide information from direct counts, measurements and weights of the crop made from small plots in a probability selection of sample fields. Currently, this method is used for forecasting papaya yield four months in advance of harvest. Research is underway to determine the feasibility of using this methodology on other crops.

CHECK DATA is used in addition to producer surveys to establish final production and marketings. These include processor receipts, slaughter, vacuum cooler volume, public tax records, and inspections. Unloads at Honolulu and wholesale prices as reported by the Market News Service, are an important check data source. Also, grower organizations, such as the Hawaiian Sugar Planters' Association, provide an efficient means of obtaining information concerning sugar production.

REPORTS ISSUED

HAWAII AGRICULTURAL STATISTICS SERVICE

Report	Frequency
CROP RELEASES	
Avocados	Annual (May)
Bananas - Acreage	Annual (March)
Bananas - Production & Price	Monthly
Coffee	Bi-annual (Jan., Aug.)
Fresh Fruit	Annual (May)
Ginger Root	Annual (July)
Guavas	Annual (May)
Macadamia Nuts	Bi-annual (Jan., July)
Papayas - Acreage, Production & Price	Monthly
Pineapple - Acreage & Production	Annual (Feb.)
Processed Fruit	Annual (May)
Sugar - Acreage & Production	Monthly (Aug. - Nov.)
Taro	Annual (Jan.)
Vegetables	Annual (April)
Vegetables - Acreage, Production & Price	Monthly
Vegetables - Expected Honolulu Vegetable Supply	Weekly
Vegetables Processed - Quantity & Price	Annual (March)
FLOWERS AND NURSERY PRODUCTS	
Anthuriums - Exports	Monthly
Dendrobium Orchids	Annual (May)
Flowers and Nursery Products	Annual (May)
Out-of-State Sales	Annual (May)
Poinsettias	Annual (Oct.)
LIVESTOCK RELEASES	
Cattle - Jan. 1, Inventory & Calf Crop	Annual (Feb.)
Cattle - Slaughter and Pasture Condition	Monthly
Chickens & Eggs	Monthly
Hogs - Dec. 1, Inventory & Pig Crop	Annual (Jan.)
Hogs - Slaughter	Monthly
Honey	Annual (May)
Milk - Production, Cow Numbers & Prices	Monthly
WEEKLY CROP WEATHER	Weekly
OTHER PUBLICATIONS	
Agricultural Labor & Wage Rates	Quarterly (Feb., May, Aug., Nov.)
STATISTICS OF HAWAIIAN AGRICULTURE	Annual (July)

The above reports may be obtained by contacting the Hawaii Agricultural Statistics Service, P. O. Box 22159, Honolulu, HI 96822-0159 (Office - 1428 S. King St., Honolulu, HI).

EXPLANATION OF GRAPHS AND TABLES ON PAGES 77 AND 83

BEEF-VEAL SUPPLY: Historical beef-veal supply data consists of all Hawaii production, carcass weight basis, foreign imports, converted to carcass weight equivalent and mainland inshipments, weight-as-shipped. Foreign and mainland inshipments of processed beef are excluded. Also, no adjustment is made for changes in inventory. Estimated supplies are derived as a function of U. S. per capita consumption of beef and veal, and Hawaii's de facto population (excludes the armed forces). Yearly historical data from 1950-1970 on Hawaii production, U. S. mainland, and foreign inshipments were totaled to serve as the dependent variable with which the supply equation was estimated. The resulting equation indicated Hawaii beef supply with a correlation coefficient of .98.

PORK SUPPLY: All historical and estimated pork supply data involved dressed weight of pork with the exception of mainland inshipments which, at times, includes live hogs shipped into Hawaii for slaughter. Foreign and mainland inshipments of processed pork are excluded. Estimated supplies are derived as a function of U. S. per capita consumption of pork and Hawaii's de facto population (excludes the armed forces). Yearly historical data from 1950-1969 on Hawaii production, U. S. mainland, and foreign inshipments were totaled to serve as the dependent variable in estimating a market supply equation. The resulting equation indicated Hawaii pork supply with a correlation coefficient of .90.

CHICKEN-BROILER SUPPLY: All historical chicken-broiler poundage data, as well as estimated supplies, are expressed on a ready-to-cook basis. Estimated supplies are derived as a function of U. S. per capita consumption and Hawaii's de facto population (excludes the armed forces). Yearly historical data from 1950-1969 on U. S. mainland inshipments and Hawaii production was totaled to serve as the dependent variable in estimating the supply equation. The resulting equation indicated Hawaii chicken-broiler supply with a correlation coefficient of .99.

Revisions to prior years are made when final figures on population and per capita consumption are available.

PHOTOGRAPHY ACKNOWLEDGEMENTS

Cover photo: Okumura Farm, Waimanalo, Oahu, photo by Arthur Osaki, HASS staff.

General summary: Sugarcane seed harvesting, Lihue, Kauai, photo by Arthur Osaki, HASS staff, page 2.

Weather summary: Chinese taro, Hakalau Mauka, Hawaii, photo by James Yamaki, HASS staff, page 16.

Floriculture feature: Dendrobium spike and torch ginger, photo by Arthur Osaki, HASS staff, page 23.

Banana feature: Banana harvesting, Kea'au Banana Plantation, Kea'au, Hawaii, photo by Richard Ha, Jr., page 36.

Livestock summary: Market hogs, Sakugawa Farms, Omaopio, Maui, photo by Aubrey Davis, HASS staff, page 69.